
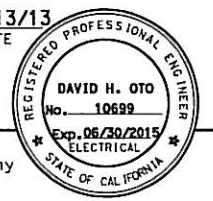




DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SF	80	13.2/13.9	407A12S1	1204


REGISTERED ELECTRICAL ENGINEER DATE 12/13/13

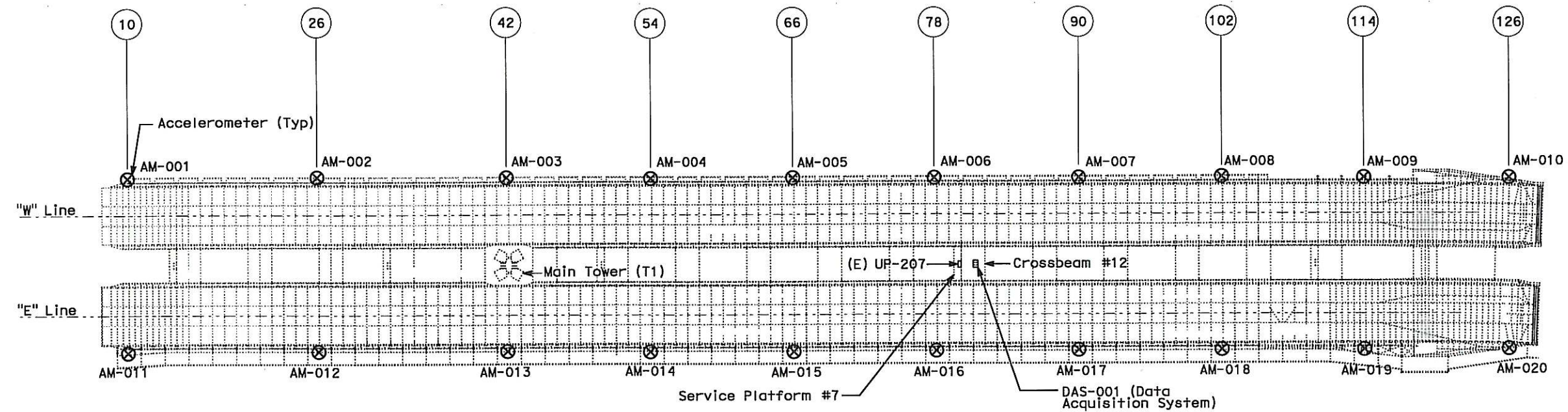


PLANS APPROVAL DATE _____

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303 Second St., Suite 700N
San Francisco, CA 94107-1317

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OBG PLAN VIEW

NOTES:

1. The Contractor shall use Belden 9774 cable for the accelerometers. The cables are to be run from DAS-001 via the communication cable tray. See Sheet E-1223.
2. Each accelerometer shall have a dedicated cable running from the DAS-001 to the instrument.
3. A representative from the Department shall be present during the wiring and may direct the Contractor to use alternate methods if deemed appropriate.

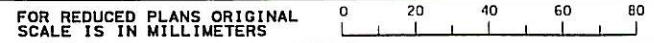
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0	12/13/13	TEMPORARY OBG MOTION INSTRUMENTATION	RR RSB	RG	359
MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
REVISIONS					

CONTRACT CHANGE ORDER NO. 359
SHEET 3 OF 36

TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM
SAS SUPERSTRUCTURE
ACCELEROMETERS LOCATION PLAN
SCALE: NTS

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USERNAME =>Llorico

CU 04251

EA 0120F1

E-1201

DATE PLOTTED => 12-DEC-2013
TIME PLOTTED => 16:39
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DIST04COUNTYSFROUTE80KILOMETER POST TOTAL PROJECT13.2/13.9SHEET No.407A12S2TOTAL SHEETS1204

12/13/13

REGISTERED ELECTRICAL ENGINEER DATE

DAVID H. OTO

No. 10699

Exp. 06/30/2015

REGISTERED PROFESSIONAL ENGINEER ELECTRICAL STATE OF CALIFORNIA

PLANS APPROVAL DATE

PB AMERICAS, Inc.

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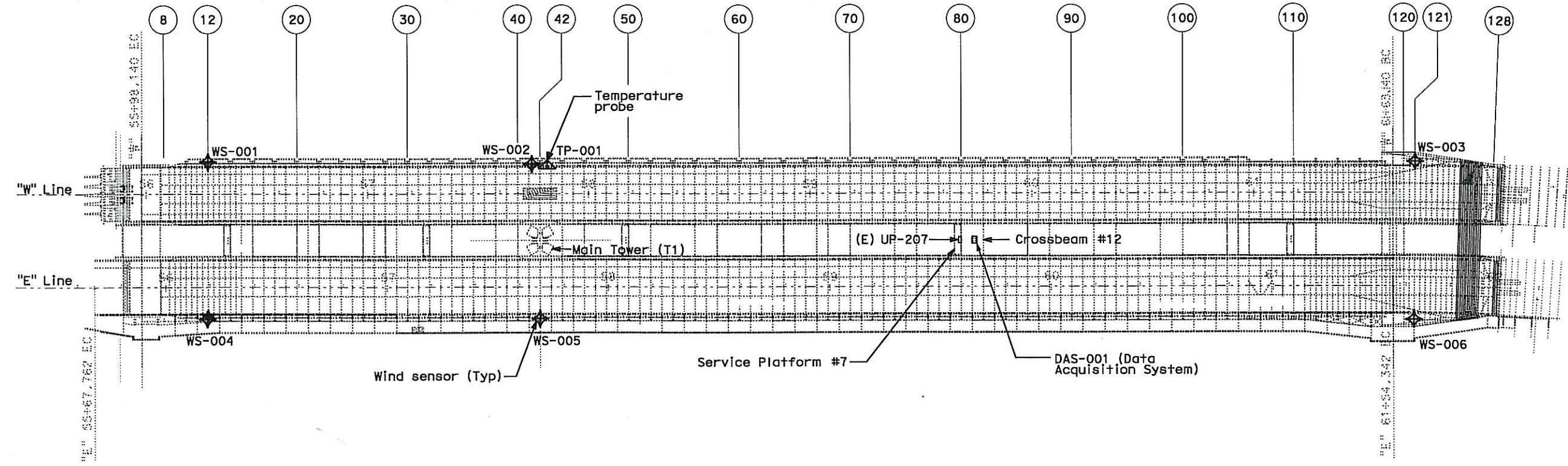
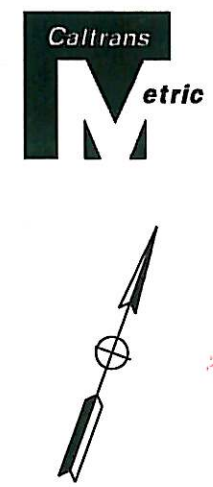
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- NOTES:
- The Contractor shall use Belden 9873 cable for the wind sensor wiring and Belden 8723 for the temperature probe wiring. The cables are to be run from DAS-001 via the communication cable tray. See Sheet E-1223.
 - Each wind sensor and temperature probe shall have a dedicated cable running from the DAS-001 to the instrument.
 - A representative from the Department shall be present during the wiring and may direct the Contractor to use alternate methods if deemed appropriate.



OBG PLAN VIEW

REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE						
MARK	DATE	TEMPORARY OBG MOTION INSTRUMENTATION	RR RSB	RG	359	
		DESCRIPTIONS	BY	CH'D	CCO#	
REVISIONS						

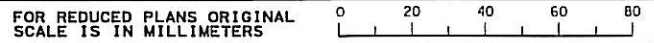
CONTRACT CHANGE ORDER NO. 359
SHEET 4 OF 36

TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM
SAS SUPERSTRUCTURE
WIND SENSORS AND TEMPERATURE PROBE LOCATION PLAN
NO SCALE

E-1202

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USERNAME =>Llorico

CU 04251

EA 0120F1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

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CALCULATED/ DESIGNED BY
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DATE
11/13

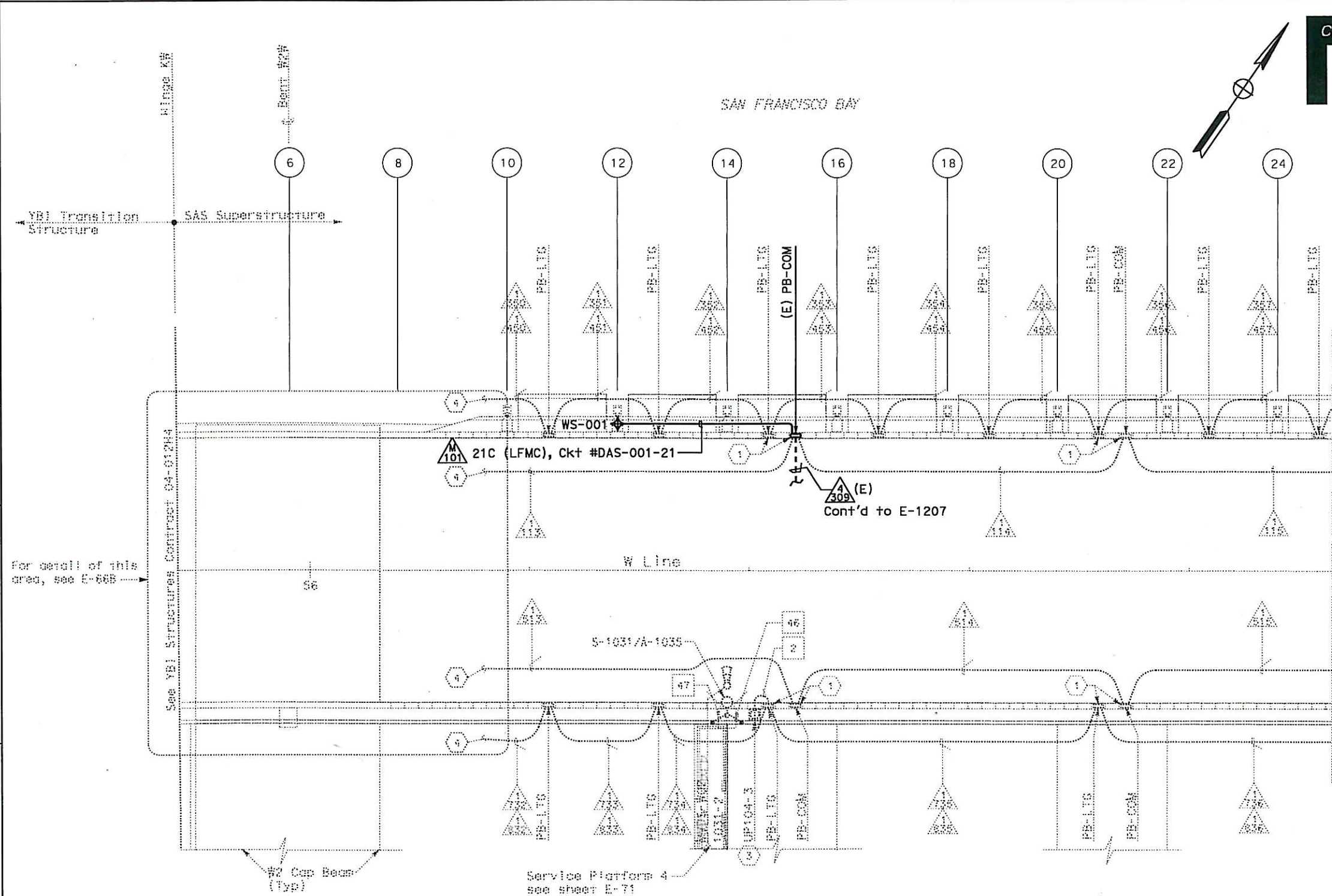
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REVISOR
DATE

REVISOR
DATE

DATE PLOTTED => 12-DEC-2013
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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
04	SF	80	13.2/13.9	407A 1253	1204

12/13/13

REGISTERED ELECTRICAL ENGINEER DATE

DAVID H. OTO
No. 10699
Exp. 06/30/2015
ELECTRICAL
STATE OF CALIFORNIA

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- NOTES:
1. This plan sheet is a record drawing from SAS Structure contract. It is being used for background purposes for installation of OBG motion instrumentation related items. Contractor shall verify existing field condition prior to installation.
 2. Existing (E) conduits and pull boxes shown in bold are for routing and pulling information of the OBG motion instrumentation cables.

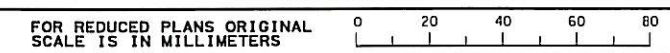
CONDUIT PLAN

REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE					
12/13/13	TEMPORARY OBG MOTION INSTRUMENTATION	RR	RG	359	
MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
REVISIONS					
CONTRACT CHANGE ORDER NO. 359					
SHEET 5 OF 36					

TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM
SAS SUPERSTRUCTURE
GIRDER WESTBOUND
SCALE: 1:200

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NOTES:

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2. Existing (E) conduits and pull boxes shown in bold are for routing and pulling information of the OBG motion instrumentation cables.



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SF	80	13.2/13.9	407A 12S4	1204

12/13/13

REGISTERED ELECTRICAL ENGINEER DATE

DAVID H. OTO

No. 10699

Exp. 06/30/2015

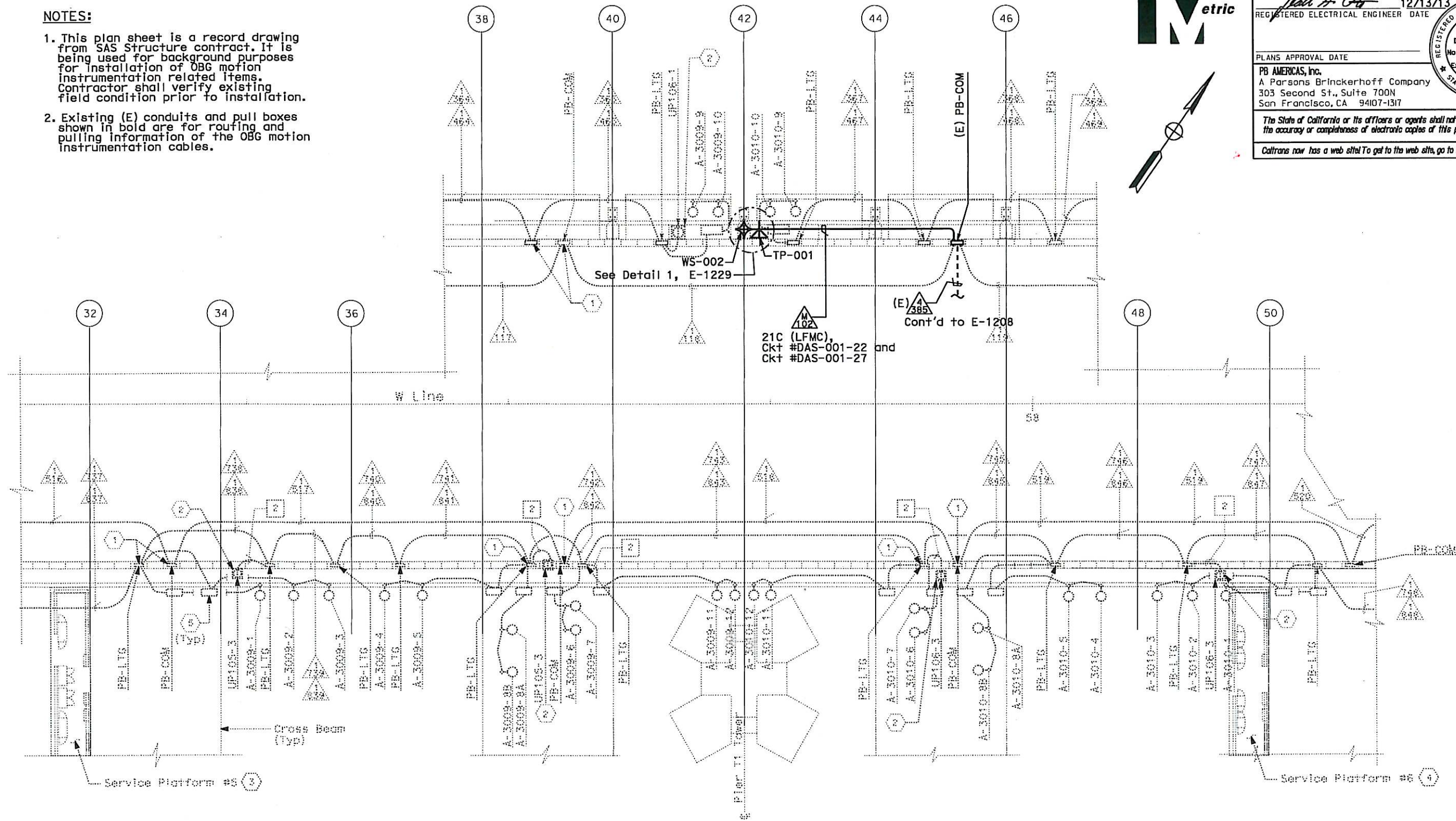
REGISTERED PROFESSIONAL ENGINEER ELECTRICAL STATE OF CALIFORNIA

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CONDUIT PARTIAL PLAN

TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM
SAS SUPERSTRUCTURE
GIRDER WESTBOUND

SCALE 1:150

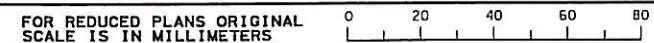
E-1204

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MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
		REVISIONS			

CONTRACT CHANGE ORDER NO. 359
SHEET 6 OF 36

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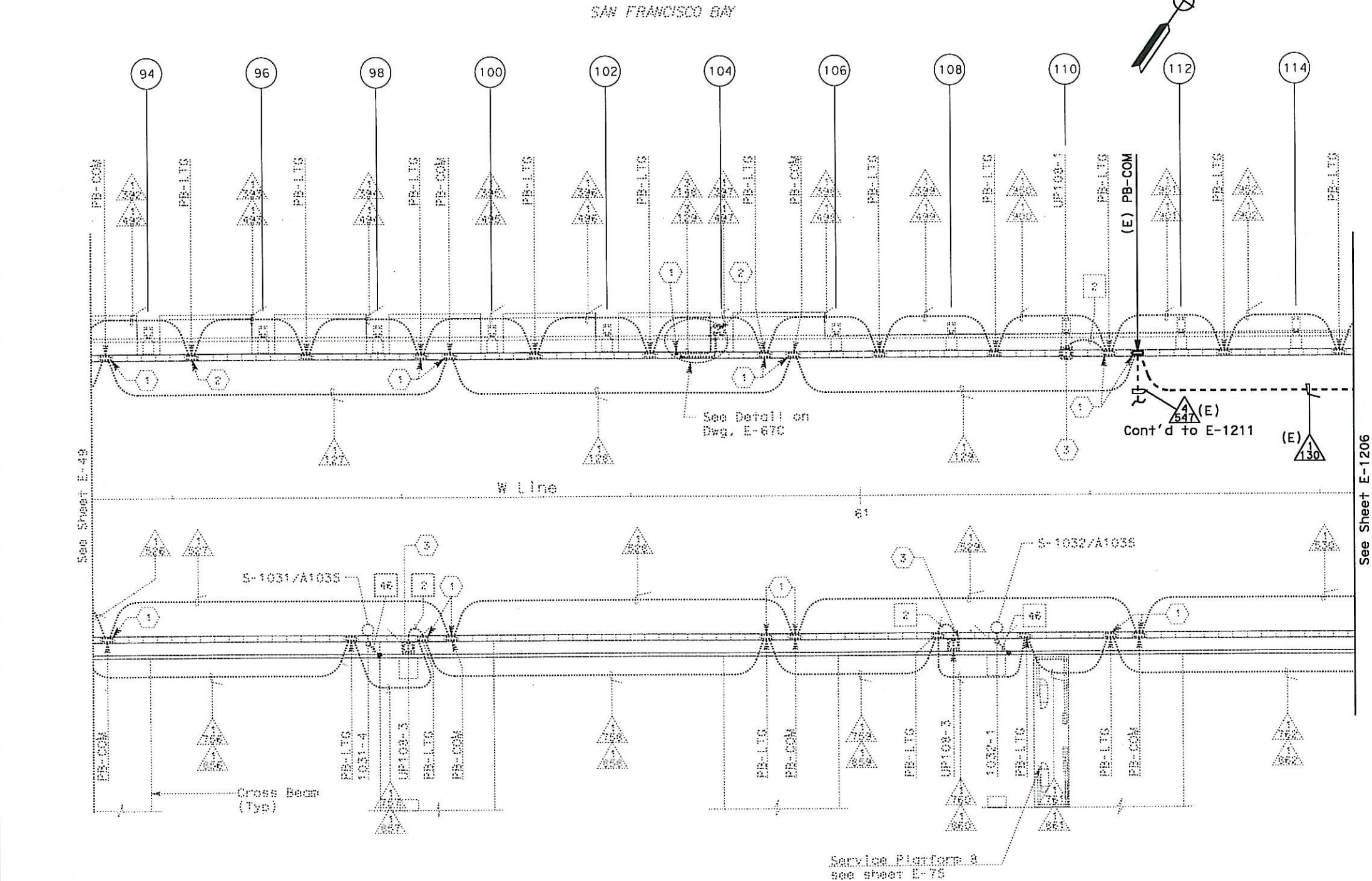
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CU 04251

EA 0120F1



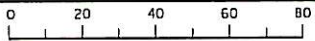
CONDUIT PLAN

TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM
SAS SUPERSTRUCTURE
GIRDER WESTBOUND
SCALE 1:200

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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	407A 1255	1204

12/13/13

REGISTERED ELECTRICAL ENGINEER DATE

DAVID H. OTO

No. 10689

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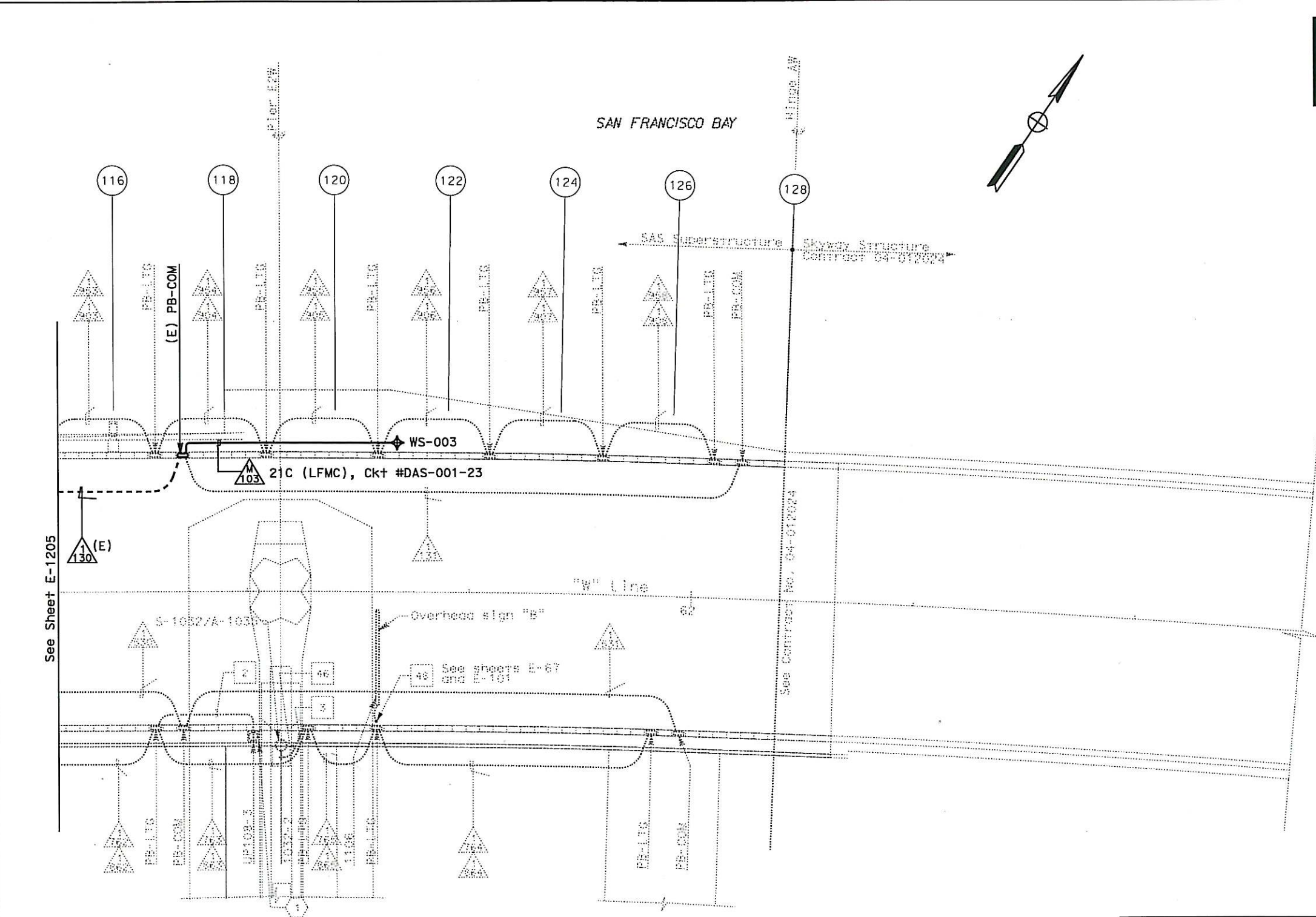
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- NOTES:
- This plan sheet is a record drawing from SAS Structure contract. It is being used for background purposes for installation of OBG motion instrumentation related items. Contractor shall verify existing field condition prior to installation.
 - Existing (E) conduits and pull boxes shown in bold are for routing and pulling information of the OBG motion instrumentation cables.

REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE					
12/13/13	TEMPORARY OBG MOTION INSTRUMENTATION	RR	RG	359	
MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
		REVISIONS			

CONTRACT CHANGE ORDER NO. 359
SHEET 7 OF 36



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CONDUIT PLAN

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SCALE IS IN MILLIMETERS



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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SF	80	13.2/13.9	407A 1256	1204

REGISTERED ELECTRICAL ENGINEER DATE 12/13/13
DAVID H. OTO
No. 10699
Exp. 06/30/2015
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NOTES:

1. This plan sheet is a record drawing from SAS Structure contract. It is being used for background purposes for installation of OBG motion instrumentation related items. Contractor shall verify existing field condition prior to installation.
2. Existing (E) conduits and pull boxes shown in bold are for routing and pulling information of the OBG motion instrumentation cables.

REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE					
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MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
REVISIONS					

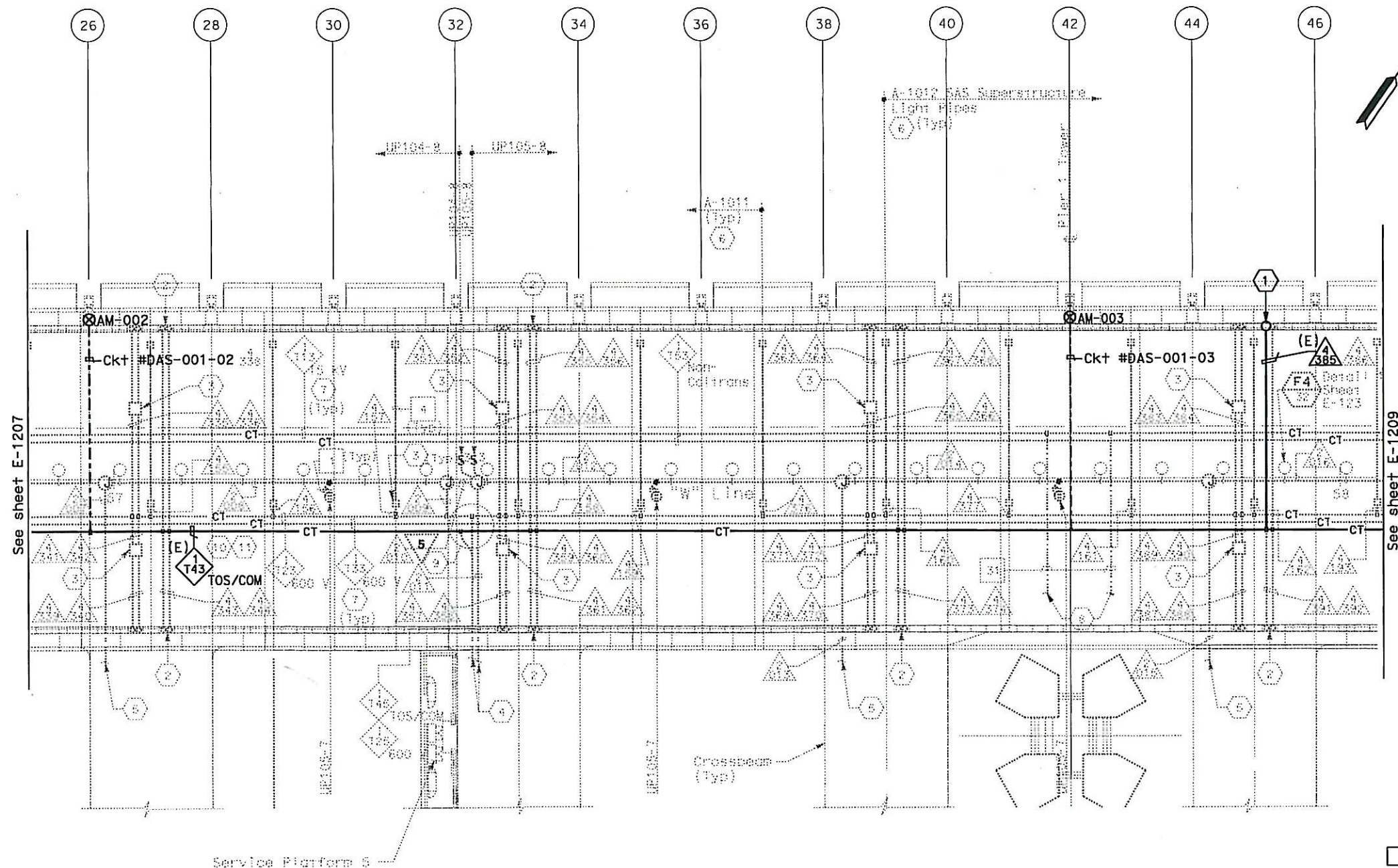
CONTRACT CHANGE ORDER NO. 359
SHEET 8 OF 36

TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM
SAS SUPERSTRUCTURE
GIRDER WESTBOUND
SCALE 1:200

E-1206

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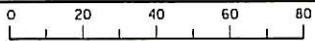


SAS SUPERSTRUCTURE - CONDUIT AND CABLE TRAY PLAN

TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM
SAS SUPERSTRUCTURE
GIRDER WESTBOUND
SCALE 1:200

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CU 04251

EA 0120F1



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
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REGISTERED ELECTRICAL ENGINEER DATE 12/13/13
DAVID H. OTO
No. 10699
Exp. 05/30/2015
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- NOTES:
- This plan sheet is a record drawing from SAS Structure contract. It is being used for background purposes for installation of OBG motion instrumentation related items. Contractor shall verify existing field condition prior to installation.
 - Existing (E) conduits and cable tray shown in bold are for routing and pulling information of the OBG motion instrumentation cables.

- SHEET NOTES:
- Conduit up to PB-COM located in barrier, see sheet E-1204.

REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE					
12/13/13	TEMPORARY OBG MOTION INSTRUMENTATION	RR	RG	359	
MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
		REVISIONS			

CONTRACT CHANGE ORDER NO. 359
SHEET 10 OF 36

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SF	80	13.2/13.9	407A 12S09	1204

12/13/13

REGISTERED ELECTRICAL ENGINEER DATE

DAVID H. OTO

No. 10699

Exp. 08/30/2015

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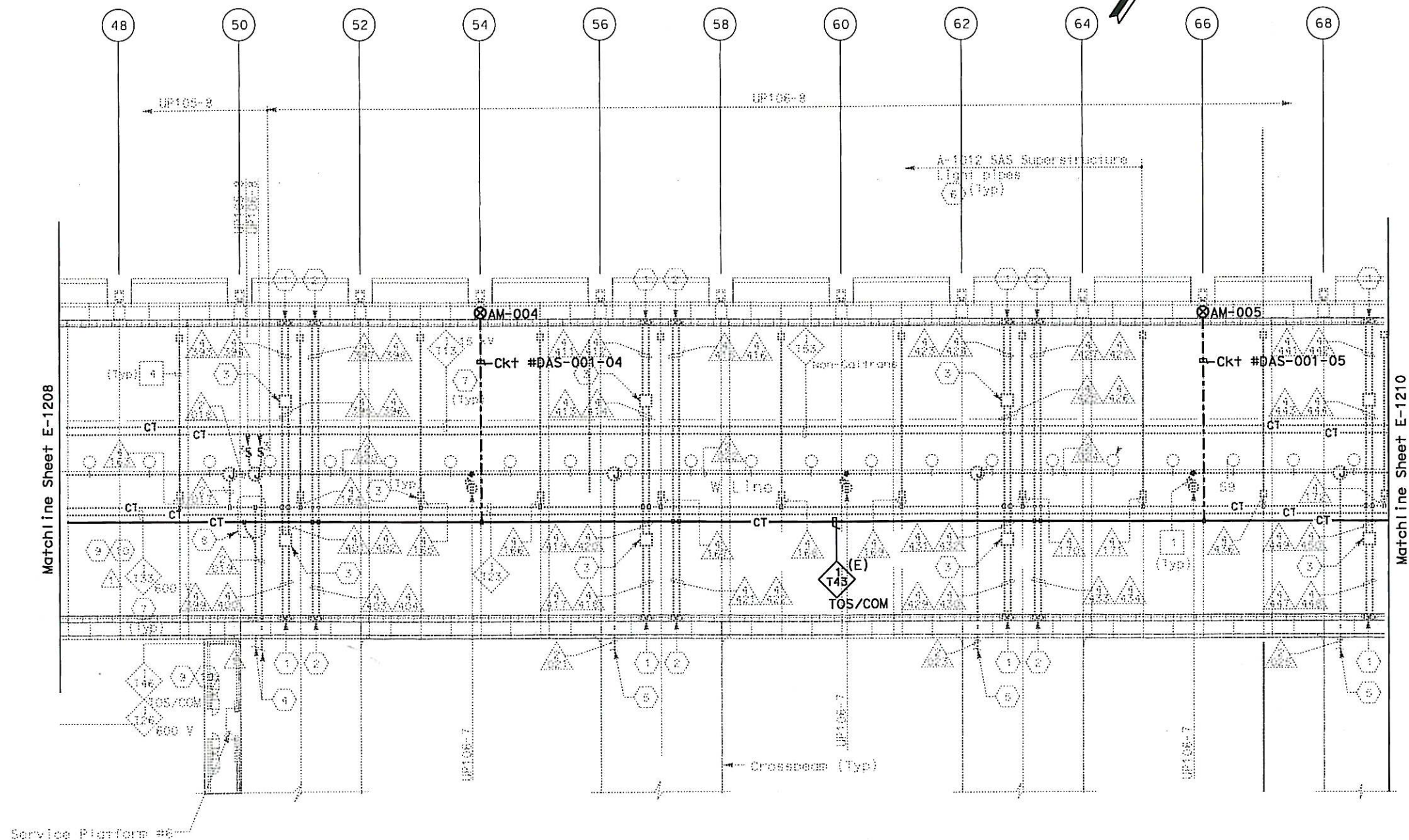
STATE OF CALIFORNIA

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SAS SUPERSTRUCTURE - CONDUIT AND CABLE TRAY PLAN

- NOTES:
1. This plan sheet is a record drawing from SAS Structure contract. It is being used for background purposes for installation of OBG motion instrumentation related items. Contractor shall verify existing field condition prior to installation.
 2. Existing (E) cable tray shown in bold is for routing and pulling information of the OBG motion instrumentation cables.

REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

12/13/13	TEMPORARY OBG MOTION INSTRUMENTATION	RR	RG	359
MARK	DATE	DESCRIPTIONS	BY	CH'D CCO#
REVISIONS				

CONTRACT CHANGE ORDER NO. 359

SHEET 11 OF 36

TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM
SAS SUPERSTRUCTURE
GIRDER WESTBOUND
SCALE 1:200

E-1209

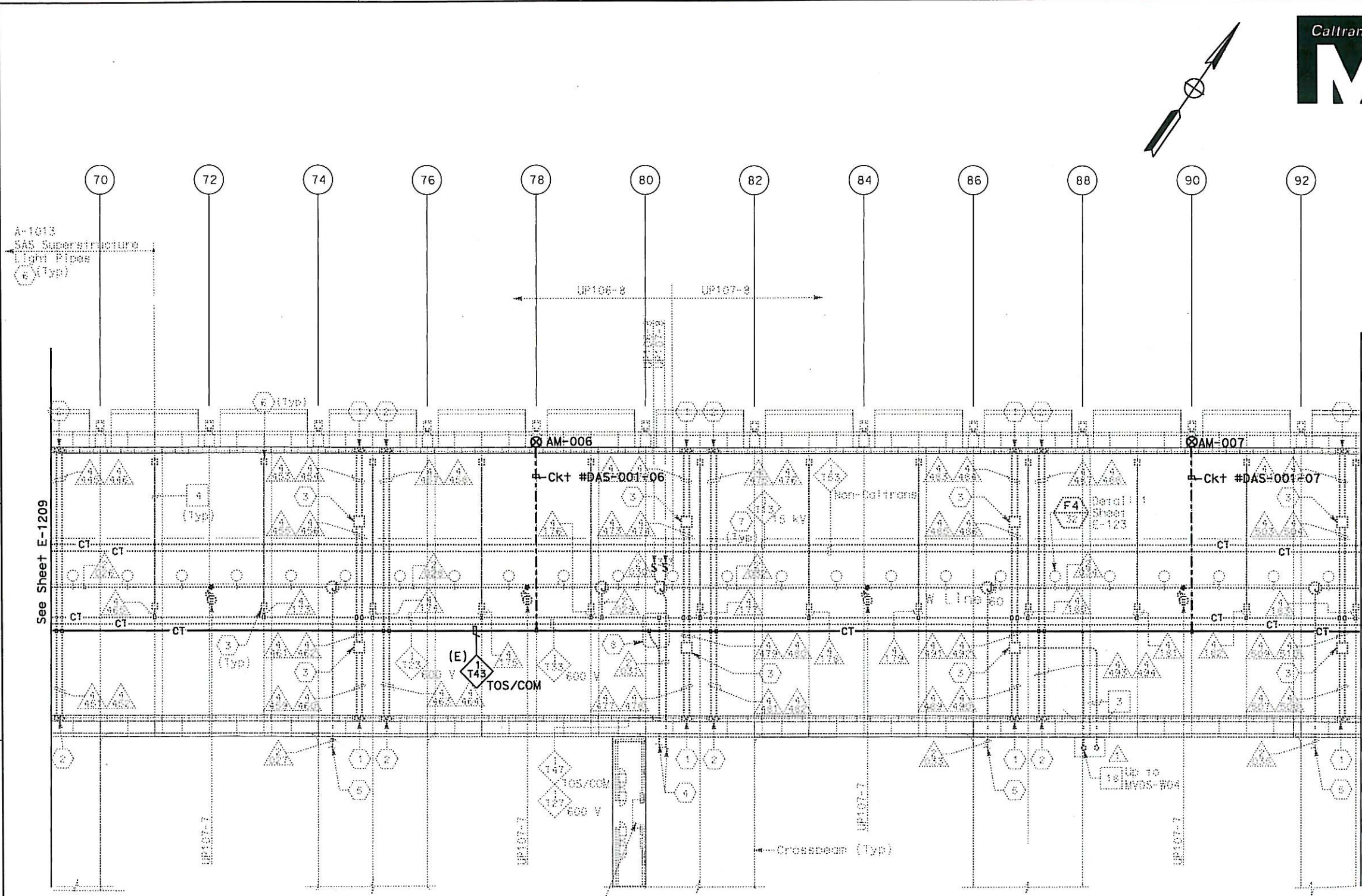
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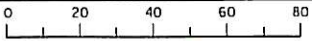
SAS SUPERSTRUCTURE - CONDUIT AND CABLE TRAY PLAN

TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM
SAS SUPERSTRUCTURE
GIRDER WESTBOUND
SCALE 1:200

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DIST

COUNTY

ROUTE

KILOMETER POST TOTAL PROJECT

SHEET NO

TOTAL SHEETS

04

SF

80

13.2/13.9

407A12S10

1204

12/13/13

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DAVID H. OTO

No. 10692

Exp. 06/30/2015

REGISTERED PROFESSIONAL ENGINEER ELECTRICAL STATE OF CALIFORNIA

PLANS APPROVAL DATE

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- NOTES:
1. This plan sheet is a record drawing from SAS Structure contract. It is being used for background purposes for installation of OBG motion instrumentation related items. Contractor shall verify existing field condition prior to installation.
 2. Existing (E) cable tray shown in bold is for routing and pulling information of the OBG motion instrumentation cables.

REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE					
MARK	DATE	TEMPORARY OBG MOTION INSTRUMENTATION	RR RSB	RG	359
		DESCRIPTIONS	BY	CH'D	CCO#
REVISIONS					
CONTRACT CHANGE ORDER NO. 359					
SHEET 12 OF 36					

E-1210

CU 04251

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DATE

12/13/13

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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SF	80	13.2/13.9	407A12511	1204

REGISTERED ELECTRICAL ENGINEER

DATE

12/13/13

DAVID H. OTO

No. 10699

Exp. 06/30/2015

ELECTRICAL

STATE OF CALIFORNIA

PLANS APPROVAL DATE

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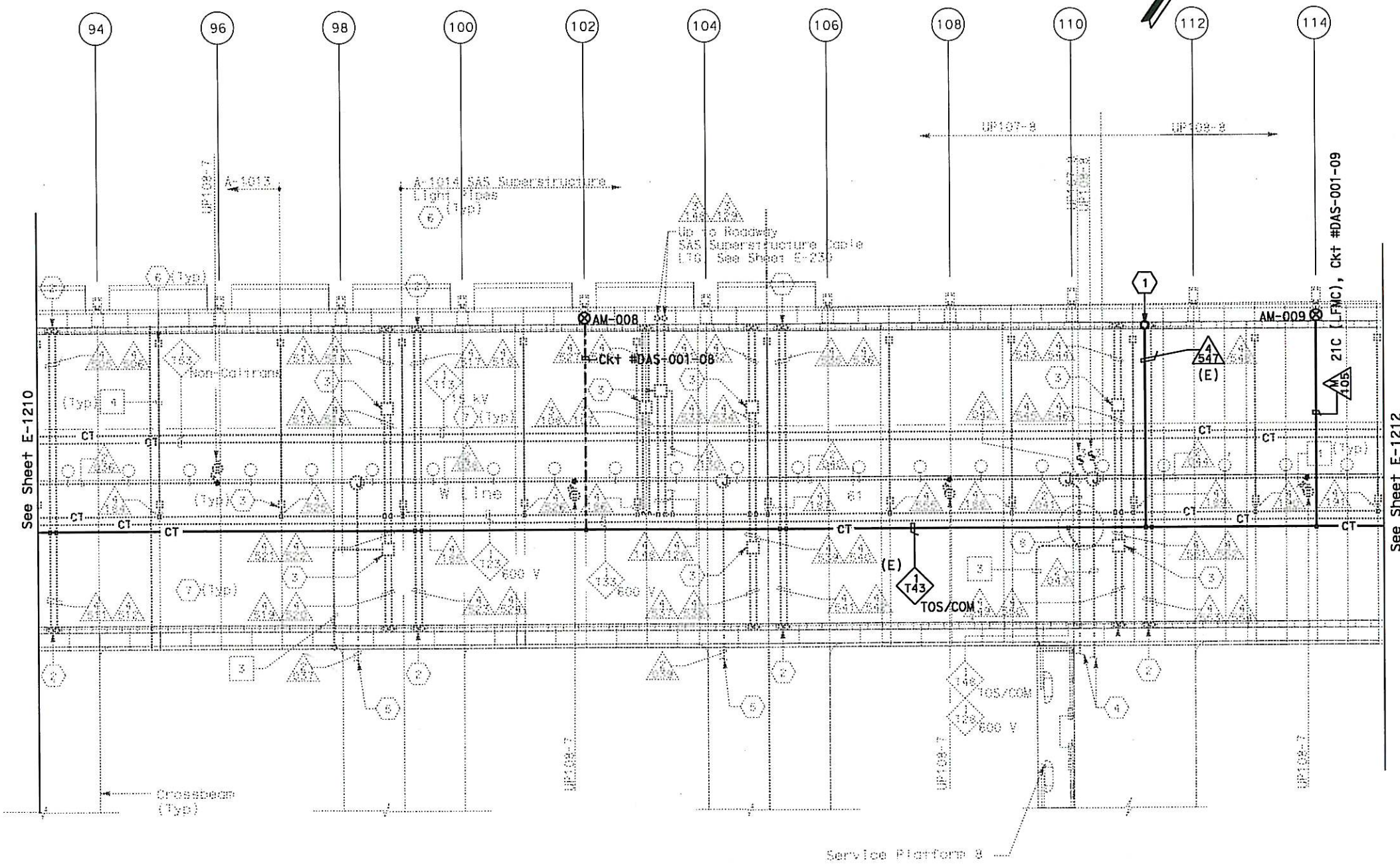
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SAS SUPERSTRUCTURE - CONDUIT AND CABLE TRAY PLAN

- SHEET NOTES:**
- 1. Conduit up to PB-COM located in barrier, see sheet E-1205.
- NOTES:**
- 1. This plan sheet is a record drawing from SAS Structure contract. It is being used for background purposes for installation of OBG motion instrumentation related items. Contractor shall verify existing field condition prior to installation.
 - 2. Existing (E) conduits and cable tray shown in bold are for routing and pulling information of the OBG motion instrumentation cables.

REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE					
	12/13/13	TEMPORARY OBG MOTION INSTRUMENTATION	RR RSB	RG	359
MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
REVISIONS					

CONTRACT CHANGE ORDER NO. 359

SHEET 13 OF 36

TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM
SAS SUPERSTRUCTURE
GIRDER WESTBOUND
SCALE 1:200

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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SF	80	13.2/13.9	407A 2S13	1204

12/13/13

REGISTERED ELECTRICAL ENGINEER DATE

DAVID H. OTO

No. 10699

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- NOTES:
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 - Existing (E) conduits and pull boxes shown in bold are for routing and pulling information of the OBG motion instrumentation cables.

REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

12/13/13	TEMPORARY OBG MOTION INSTRUMENTATION	RR RSB	RG	359	
MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
REVISIONS					

CONTRACT CHANGE ORDER NO. 359

SHEET 15 OF 36

TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM

SAS SUPERSTRUCTURE

GIRDER EASTBOUND

SCALE 1:200

E-1213

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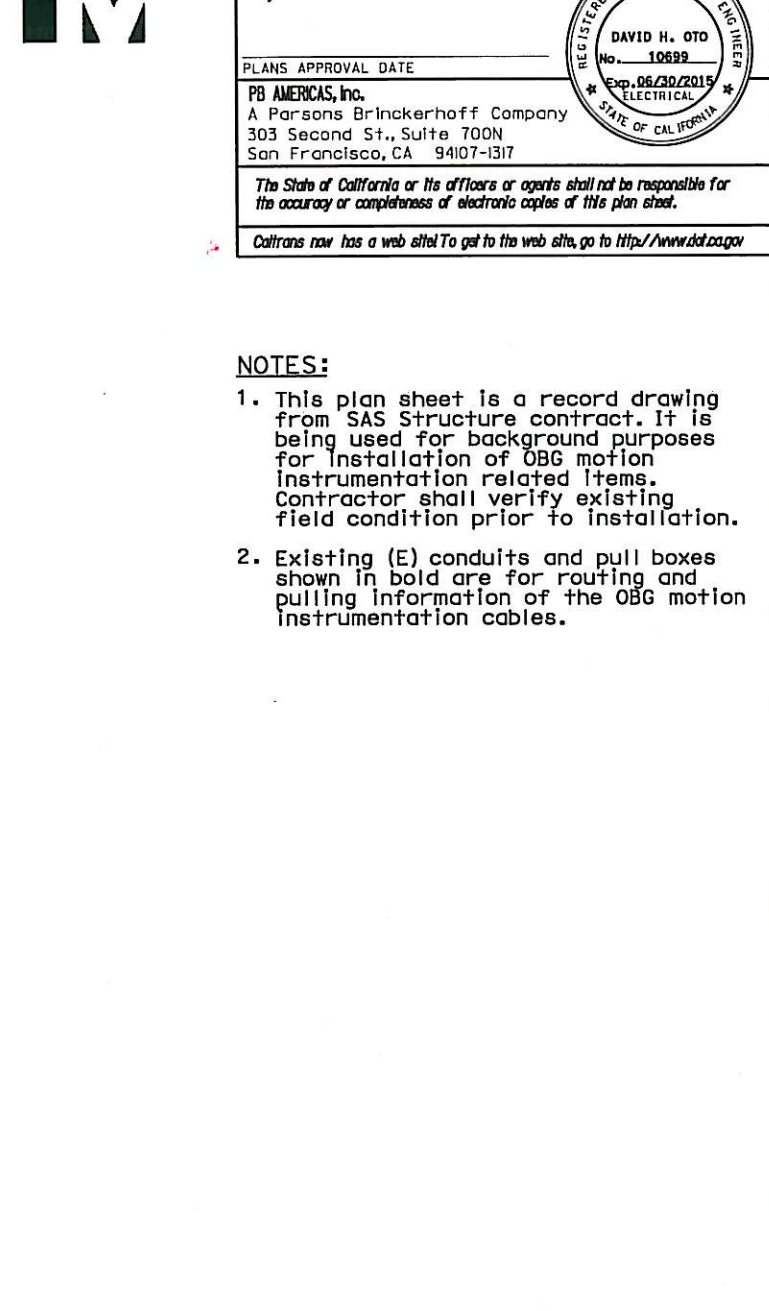
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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEET
04	SF	80	13.2/13.9	407A 12S14	120

David H. Oto 12/13/13
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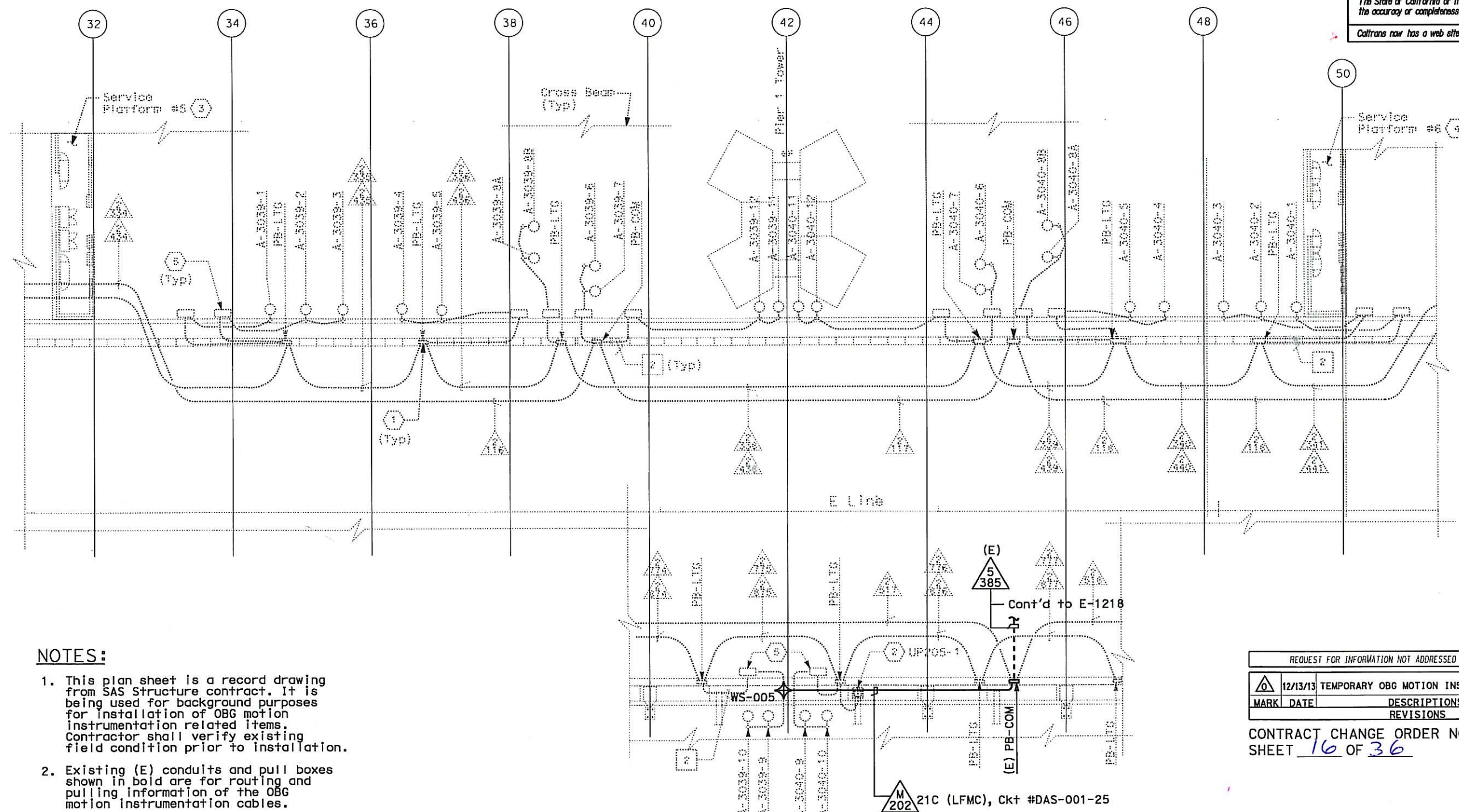
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 303 Second St., Suite 700N
 San Francisco, CA 94107-1317


THE STATE OF CALIFORNIA
 REGISTERED PROFESSIONAL ENGINEER
 No. 10689
 Exp. 06/30/2015
 ELECTRICAL
 STATE OF CALIFORNIA

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1. This plan sheet is a record drawing from SAS Structure contract. It is being used for background purposes for installation of OBG motion instrumentation related items. Contractor shall verify existing field condition prior to installation.
2. Existing (E) conduits and pull boxes shown in bold are for routing and pulling information of the OBG motion instrumentation cables.

REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE					
	12/13/13	TEMPORARY OBG MOTION INSTRUMENTATION	RR RSB	RG	3
MARK	DATE	DESCRIPTIONS	BY	CH'D	CO
		REVISIONS			

CONTRACT CHANGE ORDER NO. 359
SHEET 16 OF 36

M 21C (LFMC), Ckt #DAS-001-25

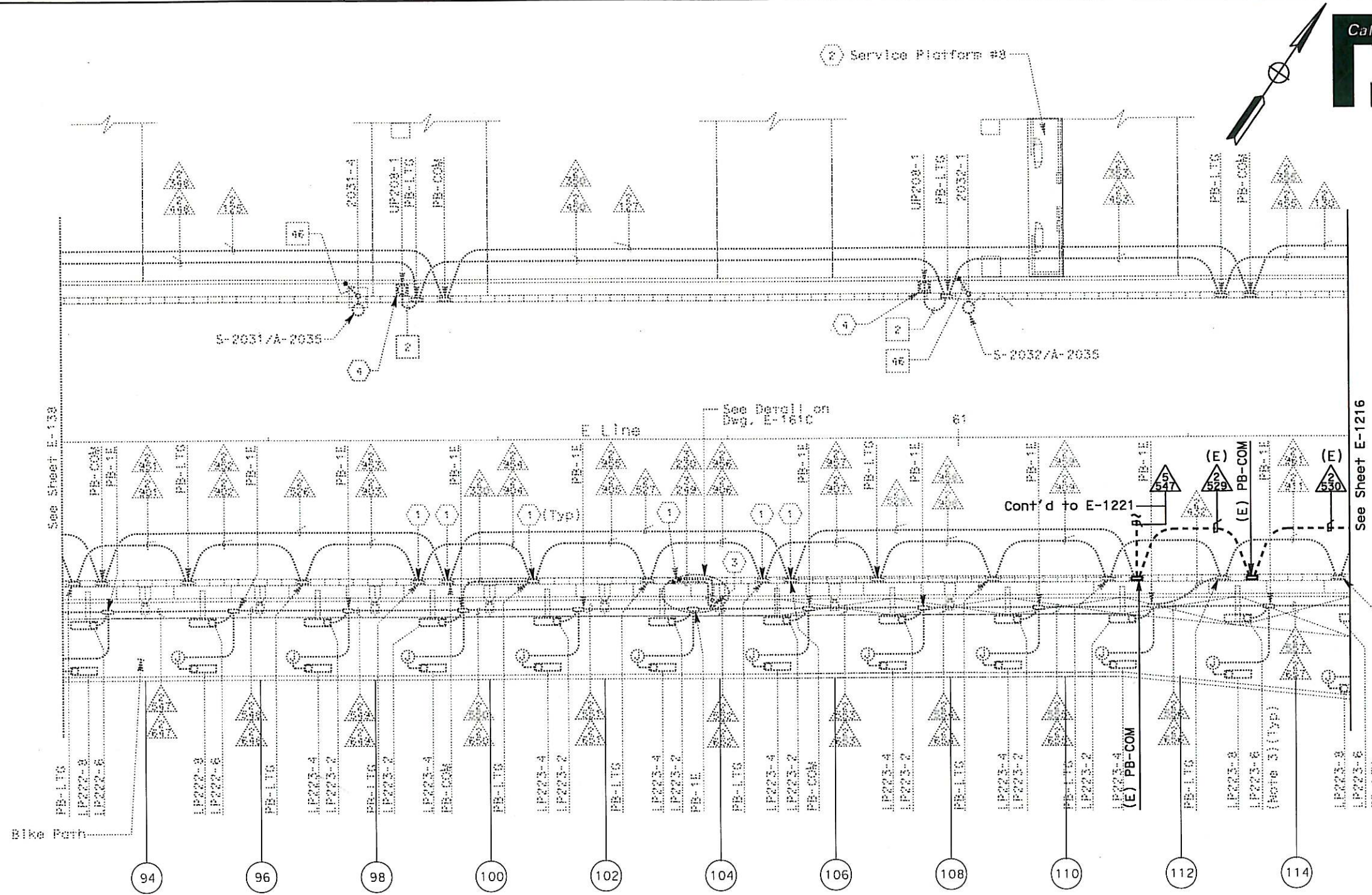
TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM
SAS SUPERSTRUCTURE
GIRDER EASTBOUND

E-1214

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

EA 0120F1

DATE PLOTTED => 12-DEC-2013
TIME PLOTTED => 16:39



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SF	80	13.2/13.9	407A 12S15	1204

REGISTERED ELECTRICAL ENGINEER DATE 12/13/13
DAVID H. OTO
No. 10699
Exp. 06/30/2015
ELECTRICAL
STATE OF CALIFORNIA

PLANS APPROVAL DATE
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SAS SUPERSTRUCTURE - CONDUIT PLAN

REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE					
12/13/13	TEMPORARY OBG MOTION INSTRUMENTATION	RR	RG	359	
MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
REVISIONS					
CONTRACT CHANGE ORDER NO. 359					
SHEET 17 OF 36					

TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM
SAS SUPERSTRUCTURE
GIRDER EASTBOUND
SCALE 1:200

E-1215

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USERNAME =>Ltorico

CU 04251 EA 0120F1

DATE PLOTTED => 12-DEC-2013
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12/13/13
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PLANS APPROVAL DATE

DAVID H. OTO
No. 10689
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CONTRACT CHANGE ORDER NO. 359
SHEET 18 OF 36

E-1216

EA 0120F1

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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SF	80	13.2/13.9	407A 12S17	1204

12/13/13

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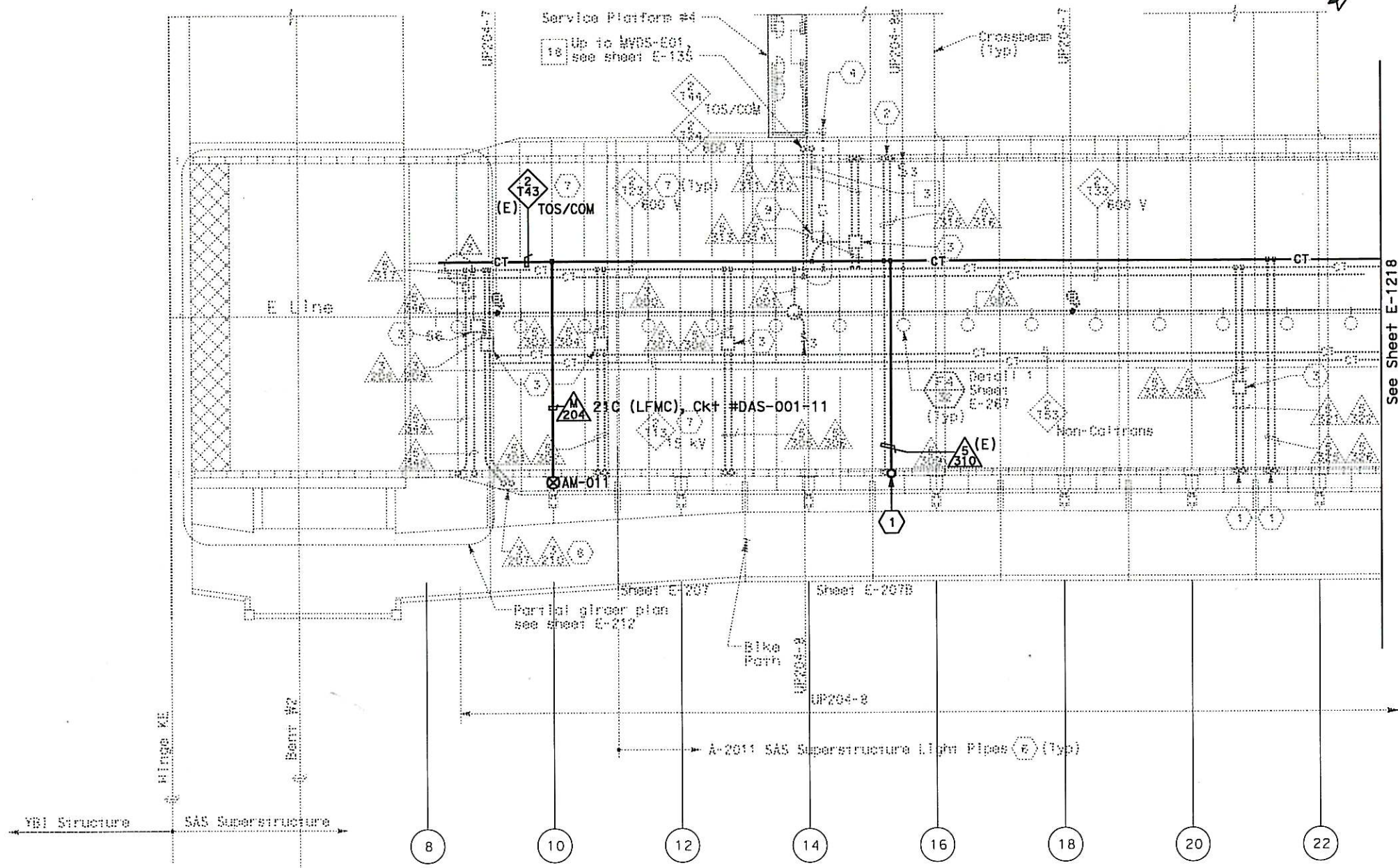
PLANS APPROVAL DATE

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- SHEET NOTES:**
- 1 Conduit up to PB-COM located in barrier, see sheet E-1213.
- NOTES:**
- 1. This plan sheet is a record drawing from SAS Structure contract. It is being used for background purposes for installation of OBG motion instrumentation related items. Contractor shall verify existing field condition prior to installation.
 - 2. Existing (E) conduits and cable tray shown in bold are for routing and pulling information of the OBG motion instrumentation cables.



SAS SUPERSTRUCTURE - CONDUIT AND CABLE TRAY PLAN

REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE					
12/13/13	TEMPORARY OBG MOTION INSTRUMENTATION	RR	RG	359	
MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
REVISIONS					

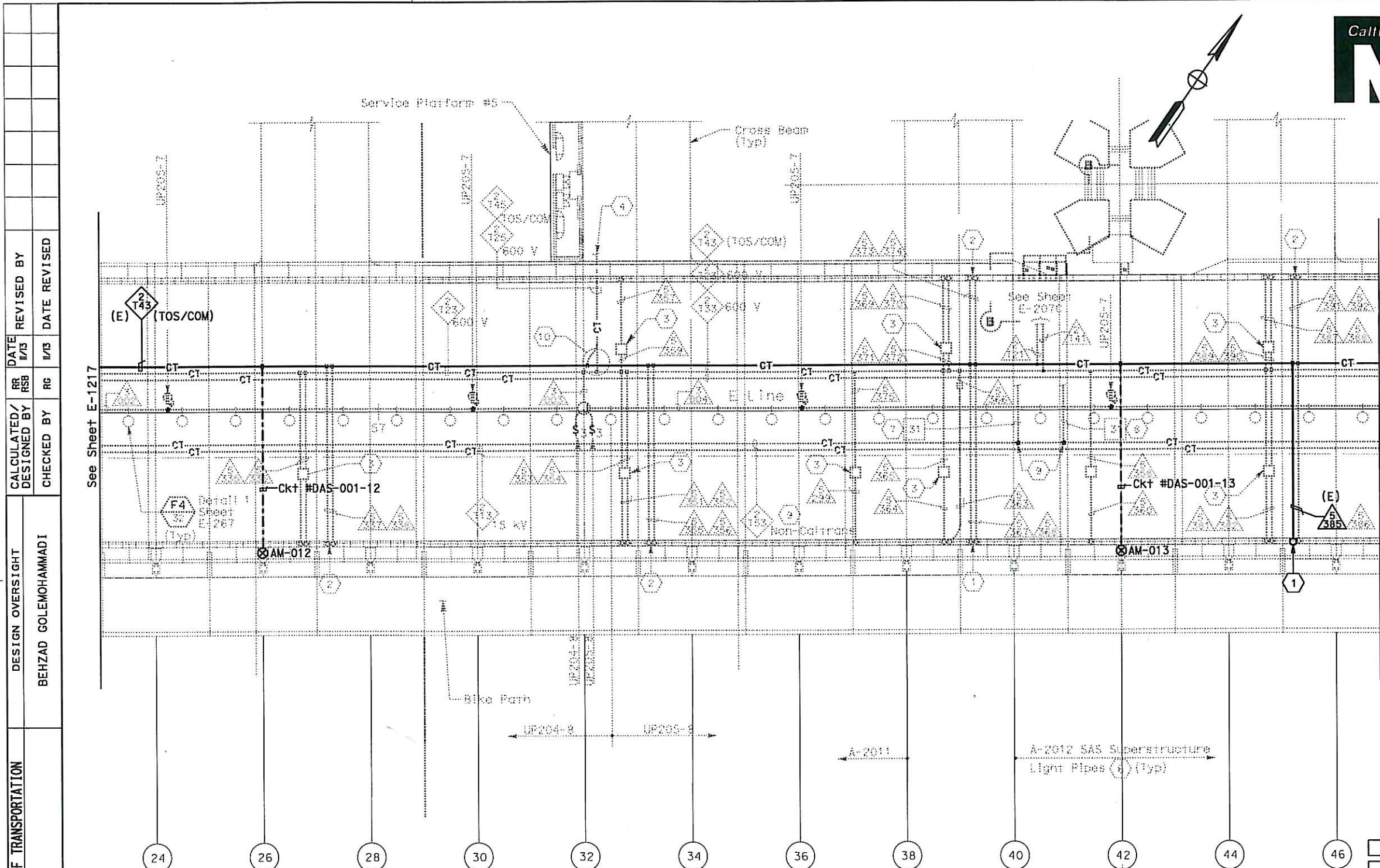
CONTRACT CHANGE ORDER NO. 359
SHEET 19 OF 36

TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM
SAS SUPERSTRUCTURE
GIRDER EASTBOUND
SCALE 1:200

E-1217

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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SF	80	13.2/13.9	407A 12S18	1204

REGISTERED ELECTRICAL ENGINEER DATE 12/13/13
DAVID H. OTO No. 10699 Exp. 06/30/2015
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- SHEET NOTES:**
- 1 Conduit up to PB-COM located in barrier, see sheet E-1214.
- NOTES:**
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REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE					
MARK	DATE	TEMPORARY OBG MOTION INSTRUMENTATION	RR RSB	RG	359
REVISIONS					
BY CH'D CCO#					

CONTRACT CHANGE ORDER NO. 359
SHEET 20 OF 36

SAS SUPERSTRUCTURE - CONDUIT AND CABLE TRAY PLAN

TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM
SAS SUPERSTRUCTURE
GIRDER EASTBOUND
SCALE 1:200

E-1218

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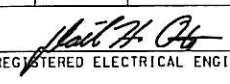
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12/13/13

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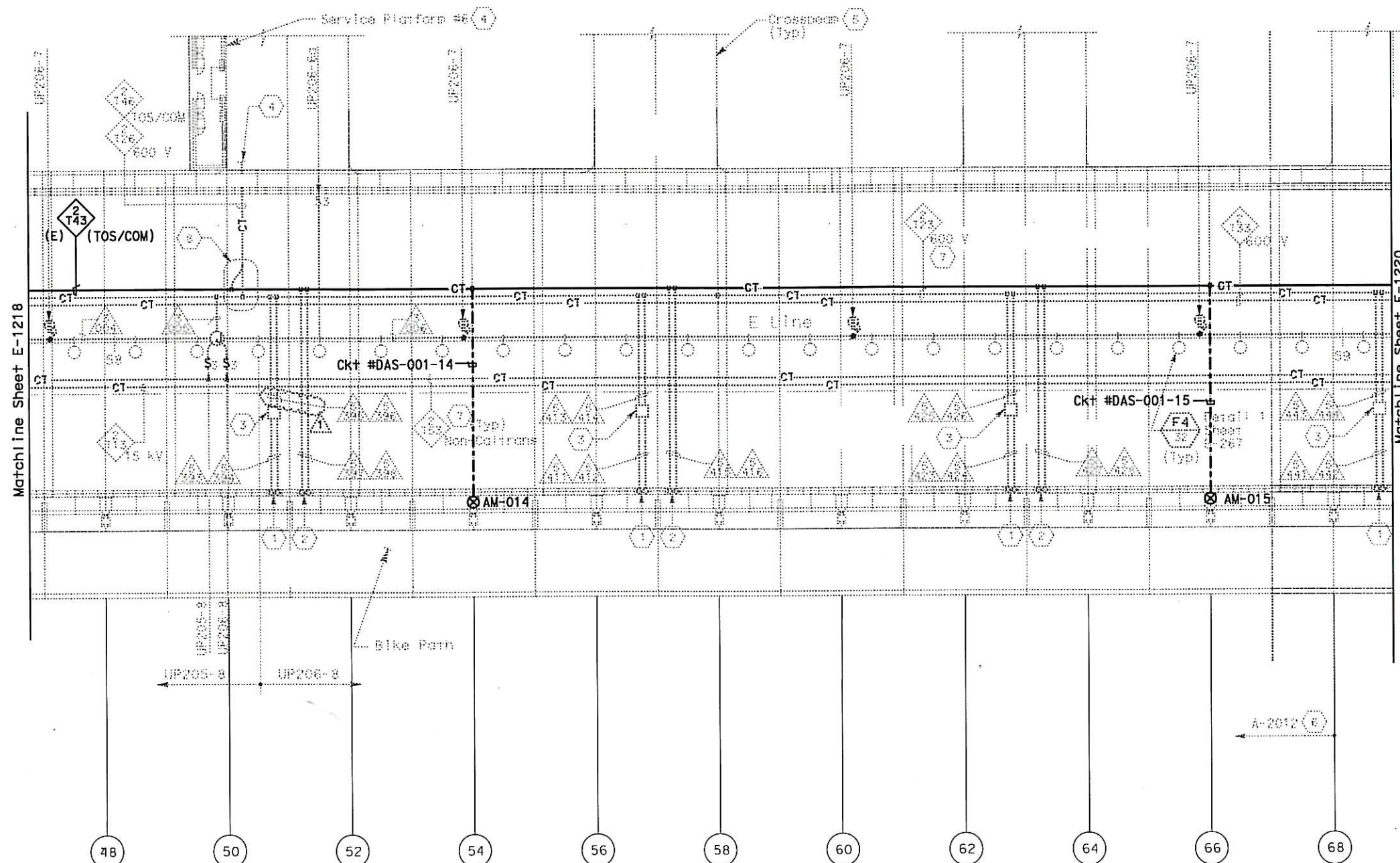
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SAS SUPERSTRUCTURE - CONDUIT AND CABLE TRAY PLAN

REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE					
12/13/13	TEMPORARY OBG MOTION INSTRUMENTATION	RR	RG	359	
MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
REVISIONS					

CONTRACT CHANGE ORDER NO. 359
SHEET 21 OF 36

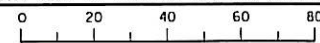
TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM
SAS SUPERSTRUCTURE
GIRDER EASTBOUND
SCALE 1:200

E-1219

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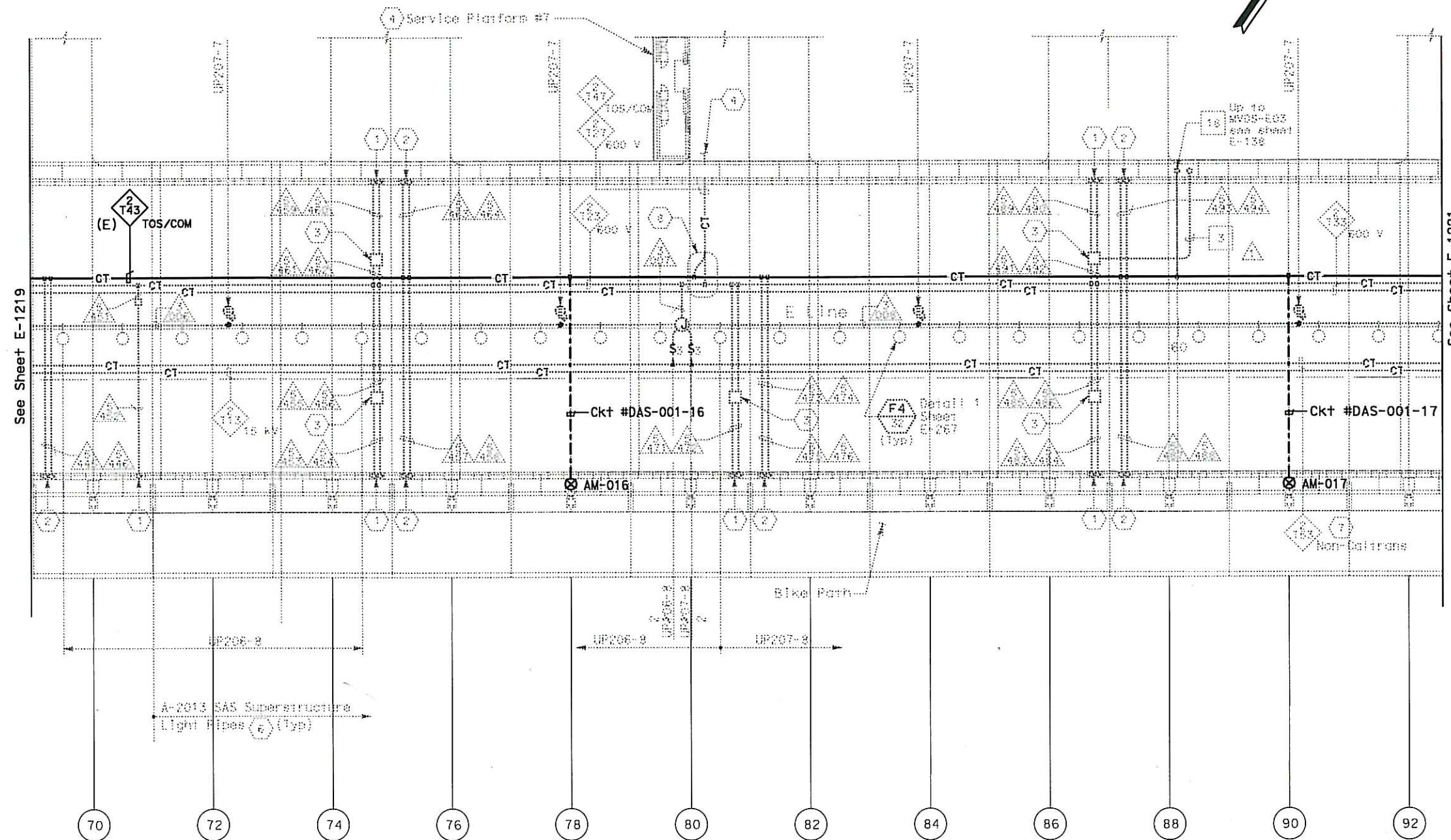
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SAS SUPERSTRUCTURE - CONDUIT AND CABLE TRAY PLAN

REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE					
△	12/13/13	TEMPORARY OBG MOTION INSTRUMENTATION	RR	RG	359
MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
REVISIONS					

CONTRACT CHANGE ORDER NO. 359
SHEET 22 OF 36

TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM
SAS SUPERSTRUCTURE
GIRDER EASTBOUND
SCALE 1:200

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EA 0120F1

- NOTES:
1. This plan sheet is a record drawing from SAS Structure contract. It is being used for background purposes for installation of OBG motion instrumentation related items. Contractor shall verify existing field condition prior to installation.
 2. Existing (E) conduits and cable tray shown in bold are for routing and pulling information of the OBG motion instrumentation cables.

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	407A 12520	1204

12/13/13

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Exp. 06/30/2019
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- ① Conduit up to PB-COM located in barrier, see sheet E-1215.
- ② Contractor to install conduit if not already installed. Conduit is part of the original SAS contract.

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CONTRACT CHANGE ORDER NO. 359
SHEET 23 OF 36

E - 1221

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EA 0120F1

DATE PLOTTED => 25-MAR-2014	TIME PLOTTED => 11:33
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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SF	80	13.2/13.9	407A 12S22	1204

12/13/13

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DAVID H. OTO

No. 10699

Exp. 06/30/2015

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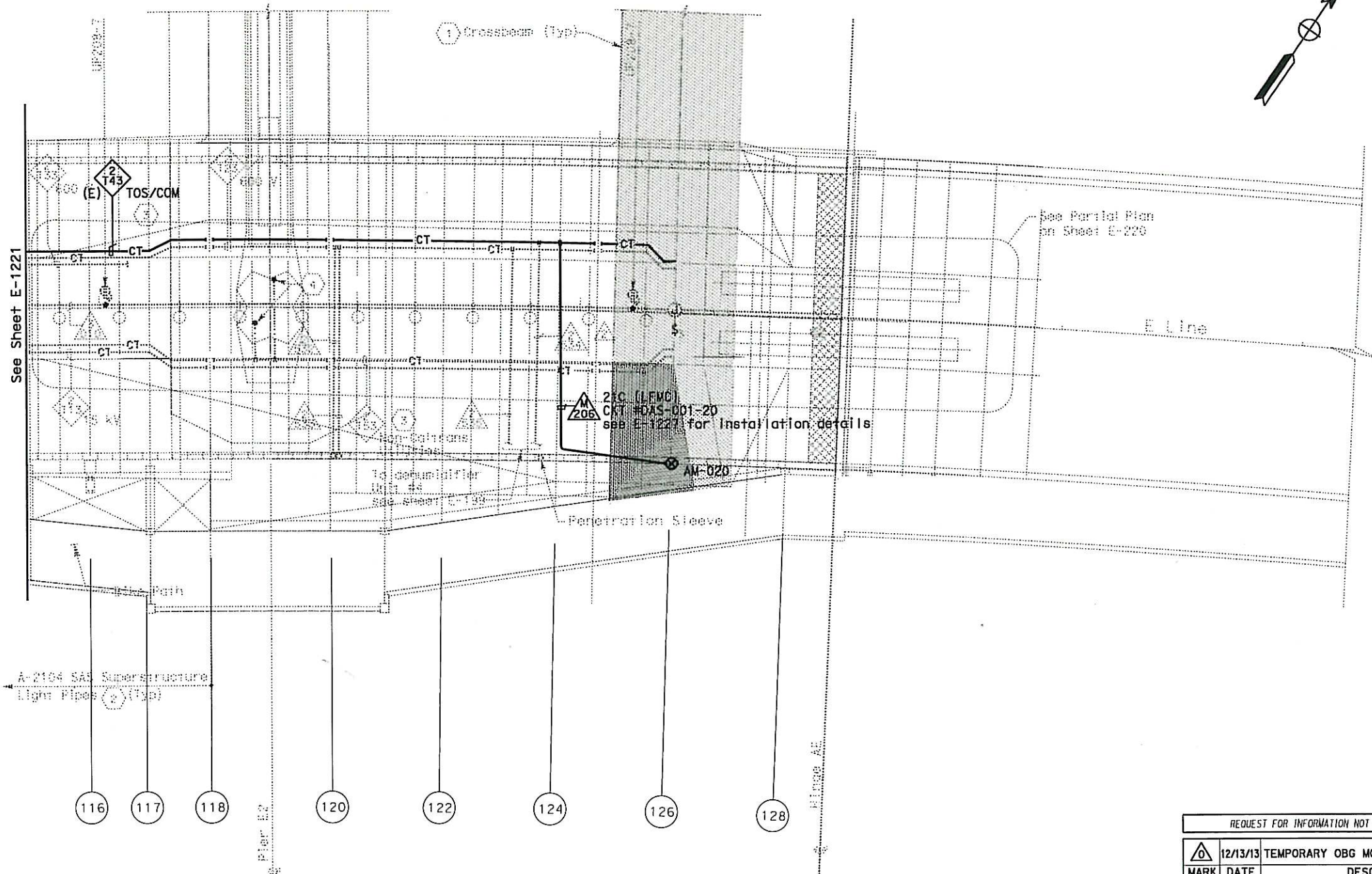
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- NOTES:
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SAS SUPERSTRUCTURE - CONDUIT AND CABLE TRAY PLAN

REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE					
12/13/13	TEMPORARY OBG MOTION INSTRUMENTATION	RR	RG	359	
MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
REVISIONS					

CONTRACT CHANGE ORDER NO. 359
SHEET 24 OF 36

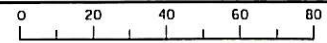
TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM
SAS SUPERSTRUCTURE
GIRDER EASTBOUND
SCALE 1:200

E-1222

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CU 04251

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SCALE 1:40



SCALE 1:40

TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM
SAS SUPERSTRUCTURE
PLATFORM 7 ARRANGEMENT
 SCALE AS NOTED

E-1223

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SCALE IS IN MILLIMETERS

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USERNAME =>Llorico
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CU 04251

EA 0120F1

SHEET NOTES:

- ① For DAS-001 cabinet support details, see sheet E-1234.
- ② Contractor shall coil 3 m of cable slack inside the DAS-001 cabinet prior to routing cables into the cable tray.

NOTES:

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2. Existing (E) cable trays, conduits and equipment shown in bold are for routing and pulling information of the OBG motion instrumentation cables.

EQUIPMENT SCHEDULE:

Equipment for Westbound

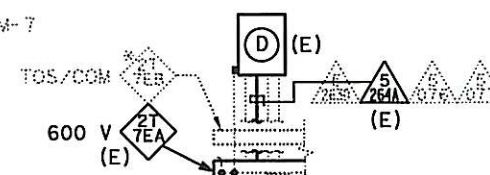
- (A) (E) Utility Panel, UP-107, 100A
208/120 V, 3-phase, 4-wire
- (A1) (E) Main Breaker for UP-107 (Nema 4X)
- (A2) (E) 15 kVA Transformer, 3 phase, 60 hz
480 V-208/120 V, 3 phase (Nema 4X)
- (C) (E) Controller Cabinet #TOS-7WA.
- (L) (E) TOS/COM-7WA Pull Box (PB-2B)

Equipment for Eastbound

- (D) (E) Utility Panel, UP-207, 100A, MLO 208/120 V, 3-phase, 4-wire
- (D1) (E) Main Breaker for (E2) (Nema 4X)
- (D2) (E) 15 kVA Transformer, 3 phase, 60 hz 480 V-208/120 V, 3 phase (Nema 4X)
- (D3) (E) Enclosed circuit breaker 10 KAIC 240 V 3 phase in NEMA 4X enclosure.
- (E) (E) Lighting Panel LP-222, 100A MLO 208/120 V, 3-phase, 4-wire
- (E1) (E) Main Breaker for (E2) (Nema 4X)
- (E2) (E) 15 kVA Transformer, 3 phase, 60 480 V-208/120 V, 3 phase (Nema 4X)
- (E3) (E) Enclosed circuit breaker 10 KAIC 240 V 3 phase in NEMA 4X enclosure.
- (F) (E) Controller Cabinet #TOS-7EA.
- (M) (E) TOS/COM-7EA Pull Box (PB-2B)

Equipment Common for Westbound/Eastbound



- (G) (E) Telephone Terminal Box #TEL-7
(PB-7C)
- (H) (E) Communication Terminal Box #COM-7
(PB-7B)
- (J) Base Camera Transition Panel
#BCTP-SP7A
914 H x 762 W x 254 D
- (K) Data Acquisition System Cabinet
(DAS-001)



SECTION A-A


SCALE 1:40

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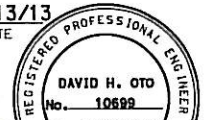
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MARK	DATE	DESCRIPTIONS	BY	CH'D	CC
REVISIONS					

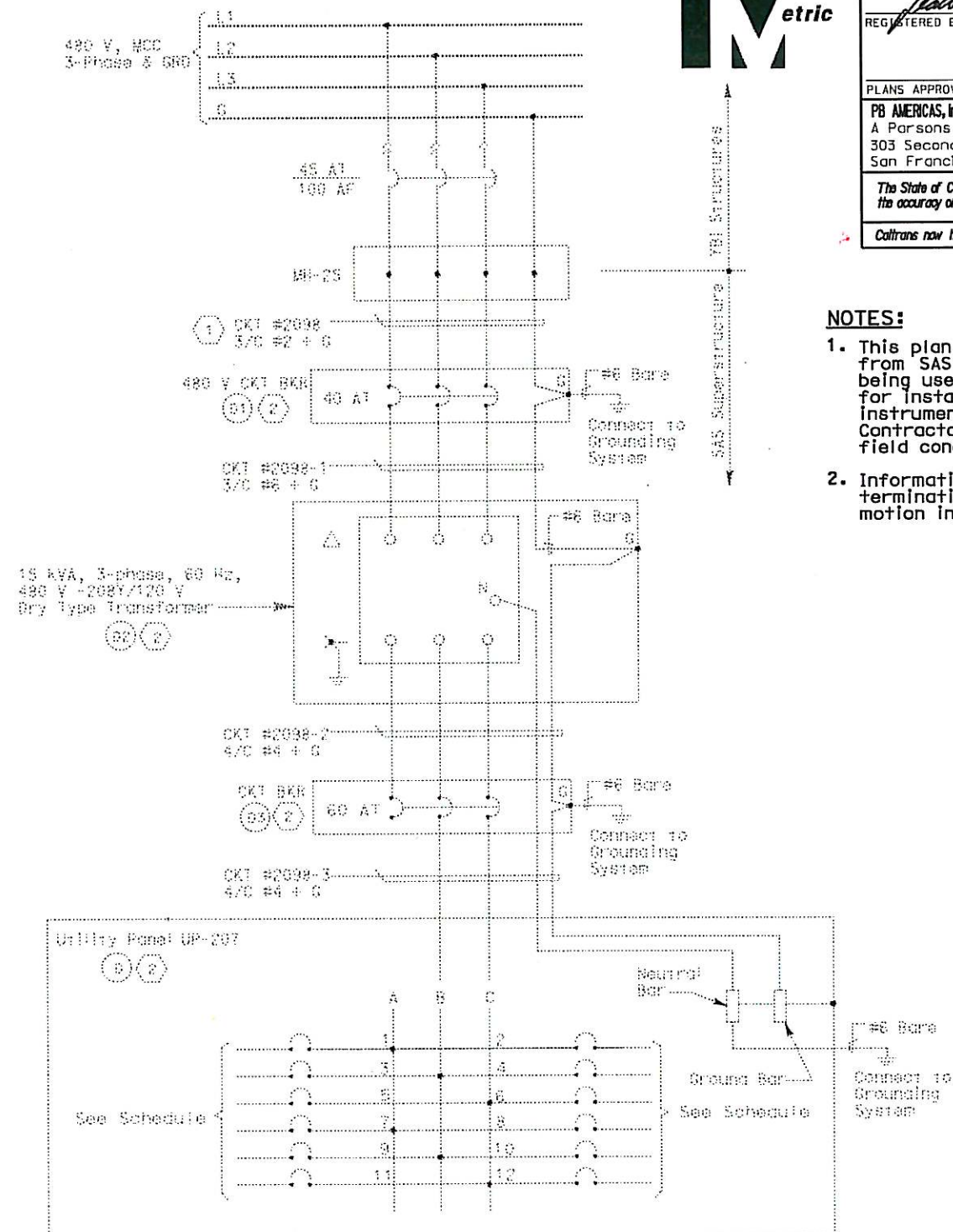
CONTRACT CHANGE ORDER NO. 359

SHEET 25 OF 36



1 FOR REVISION ONLY

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SF	80	13.2/13.9	407A 12S24	1204
			12/13/13		
REGISTERED ELECTRICAL ENGINEER			DATE		
PLANS APPROVAL DATE _____					
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(E) UTILITY PANEL UP-207 (CKT #2098)

Location:
SAS STRUCTURE SERVICE PLATFORM #7

LOAD DESCRIPTION	LTG	REC	OTH.	CB		CB	LTG	REC	OTH.	LOAD DESCRIPTION
Recess (1) Eastbound North Barrier		100		20 1	1 A 2	20 1				Spare
Spare				20 1	3 B 4	20 1				Spare
Recess (2) Service Platform #7		360		20 1	5 C 6	20 1			1000	Data Acquisition System Cabinet (DAS-001)
Recess (4) Girder		720		20 1	7 A 8	20 1	1230			Girder Lighting (30)
Spare				20 1	9 B 10	30 1			2000	Controller Cabinet #TOS-TEA
Spare				20 1	11 C 12	20 1			1000	Data Acquisition System Cabinet (DAS-001)
TOTAL VA		1260					1230		4000	TOTAL VA

LOAD SUMMARY	(INCLUDES .90 PF)	(VA)	BALANCE	(kVA)	VOLTAGE: 208/120 V
Lighting (At 100%): 1230			Phase A - 2.130		PHASE/WIRES: 3-phase, 4-wire
Gen Use (1st 10 kVA at 100% Plus 50% of remainder): 5260			Phase B - 2.000		BUS RATING: 100 A
			Phase C - 2.360		MAIN: MAIN LUGS ONLY
					MOUNTING: Surface
					K.A.I.C.: 10

TOTAL KVA: 6.490

CONTRACT CHANGE ORDER NO. 359
SHEET 26 OF 36

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E-1224

DATE PLOTTED => 25-MAR-2014
TIME PLOTTED => 14:47



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SF	80	13.2/13.9	407A 12S25	1204

REGISTERED ELECTRICAL ENGINEER DATE 12/13/13
DAVID H. OTO
No. 10699
Exp. 06/30/2015
ELECTRICAL
STATE OF CALIFORNIA

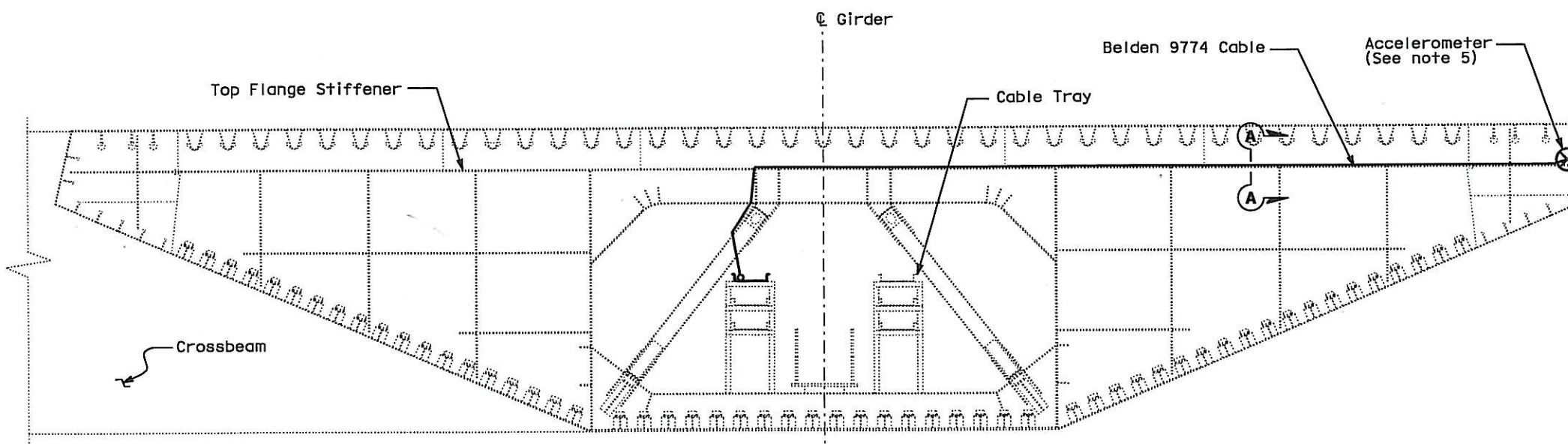
PLANS APPROVAL DATE
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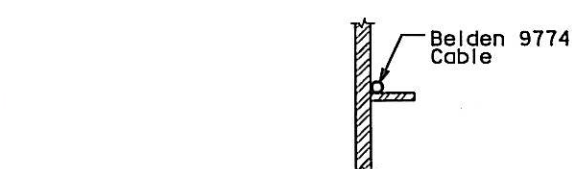
NOTES:

1. This wiring detail applies to PPs 26, 42, 54, 66, 78, 90, and 102.
2. The cables are to be run from the cable tray up onto the top flange stiffener of the floorbeam and along the stiffener to the edge plate, as shown on the drawing. See Section A-A.
3. The Contractor shall leave extra 3.0 m of slack cable after reaching the edge plate.
4. The Contractor shall ensure the cable is sufficiently secured onto the top flange stiffener.
5. For accelerometer installation detail, see Detail 3, sheet E-1232.

WESTBOUND OBG SECTION TYPICAL (LOOKING EAST)



EASTBOUND OBG SECTION TYPICAL (LOOKING EAST)



SECTION A-A

REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE					
03/25/14	TEMPORARY OBG MOTION INSTRUMENTATION	EL	RG	359	
MARK	DATE	DESCRIPTIONS	BY	CH'D	CCOM#
REVISIONS					

CONTRACT CHANGE ORDER NO. 359
SHEET 27 OF 36

DETAILS TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM SAS SUPERSTRUCTURE TYPICAL CROSS SECTION SCALE: 1:20

E-1225

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CU 04251

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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SF	80	13.2/13.9	407A 12526	1204

REGISTERED ELECTRICAL ENGINEER DATE 12/13/13

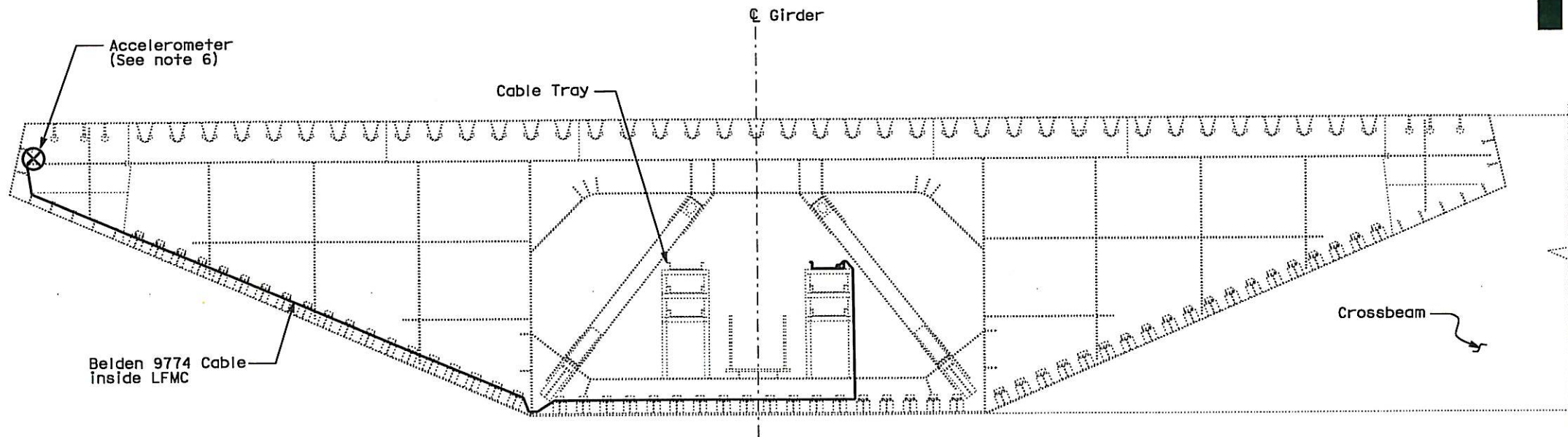
PLANS APPROVAL DATE

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San Francisco, CA 94107-1317

REGISTERED PROFESSIONAL ENGINEER
DAVID H. OTO
No. 10689
Exp. 06/30/2015
STATE OF CALIFORNIA

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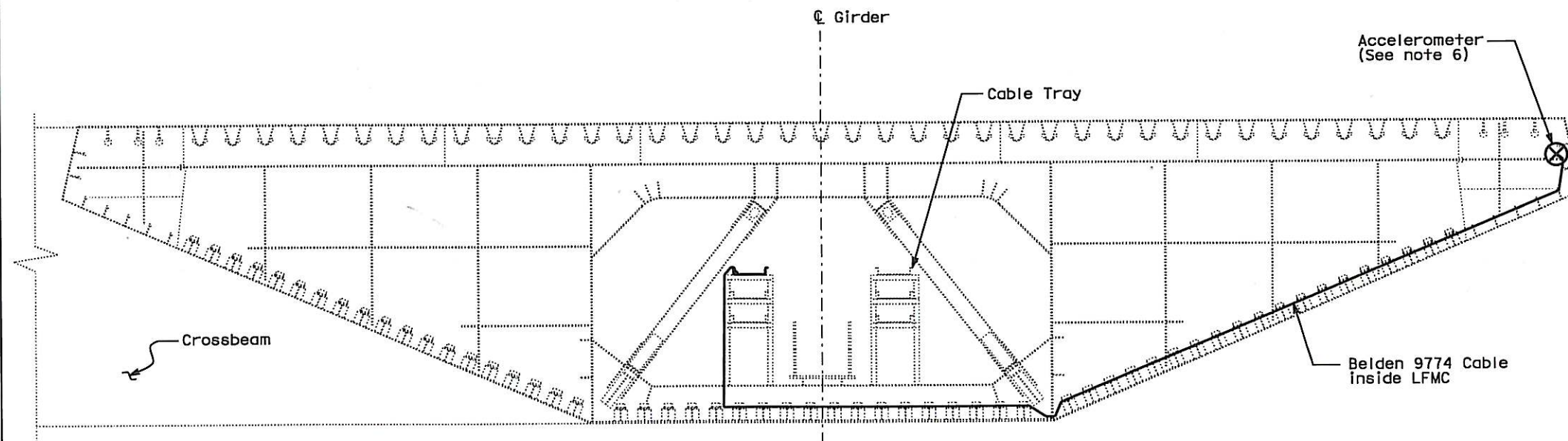
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**WESTBOUND OBG SECTION
TYPICAL
(LOOKING EAST)**

NOTES:

1. This wiring detail applies to PPs 10 and 114.
2. The cables are to be run from the cable tray along the bottom plate and the side plate to the edge plate.
3. All cables outside of the cable tray shall be enclosed in a flexible conduit.
4. Contractor shall leave extra 3.0 m of slack cable at the edge plate.
5. The Contractor shall ensure the conduit is sufficiently secured along the bottom and side plates.
6. For accelerometer installation detail, see Detail 3, sheet E-1232.



**EASTBOUND OBG SECTION
TYPICAL
(LOOKING EAST)**

REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE					
03/25/14	TEMPORARY OBG MOTION INSTRUMENTATION	EL	RG	359	
MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
REVISIONS					

CONTRACT CHANGE ORDER NO. 359
SHEET 28 OF 36

DETAILS
TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM
SAS SUPERSTRUCTURE
TYPICAL CROSS SECTION
SCALE: 1:20

E-1226

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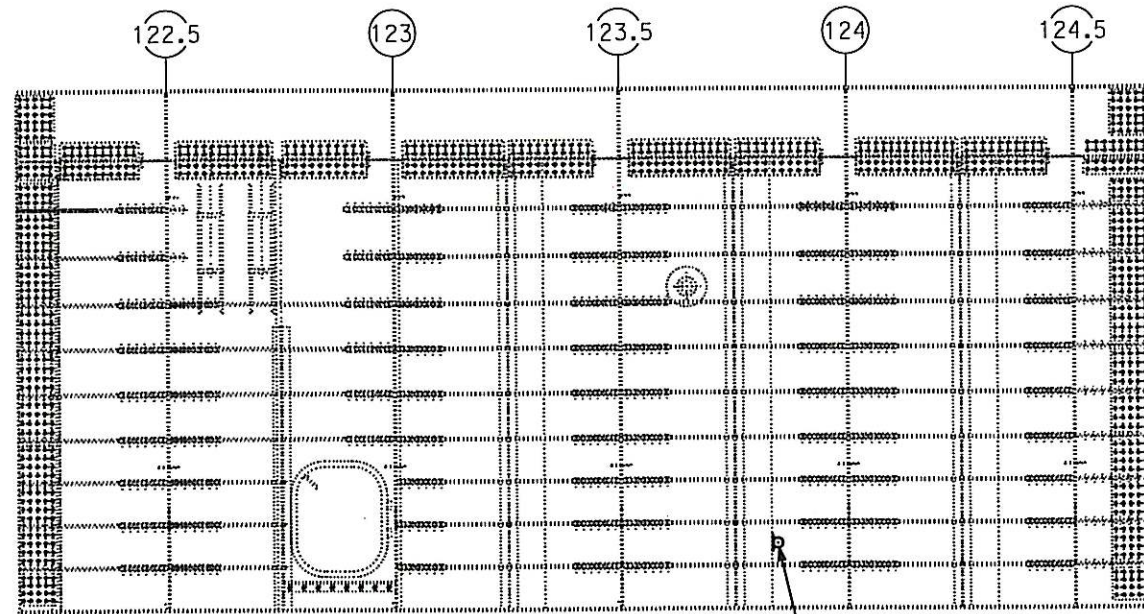
FOR REDUCED PLANS ORIGINAL
SCALE IS IN MILLIMETERS

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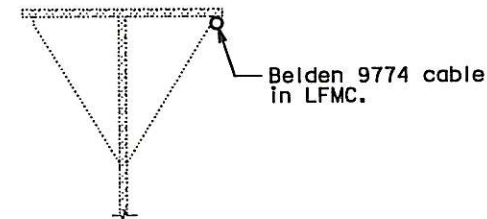
CU 04251

EA 0120F1



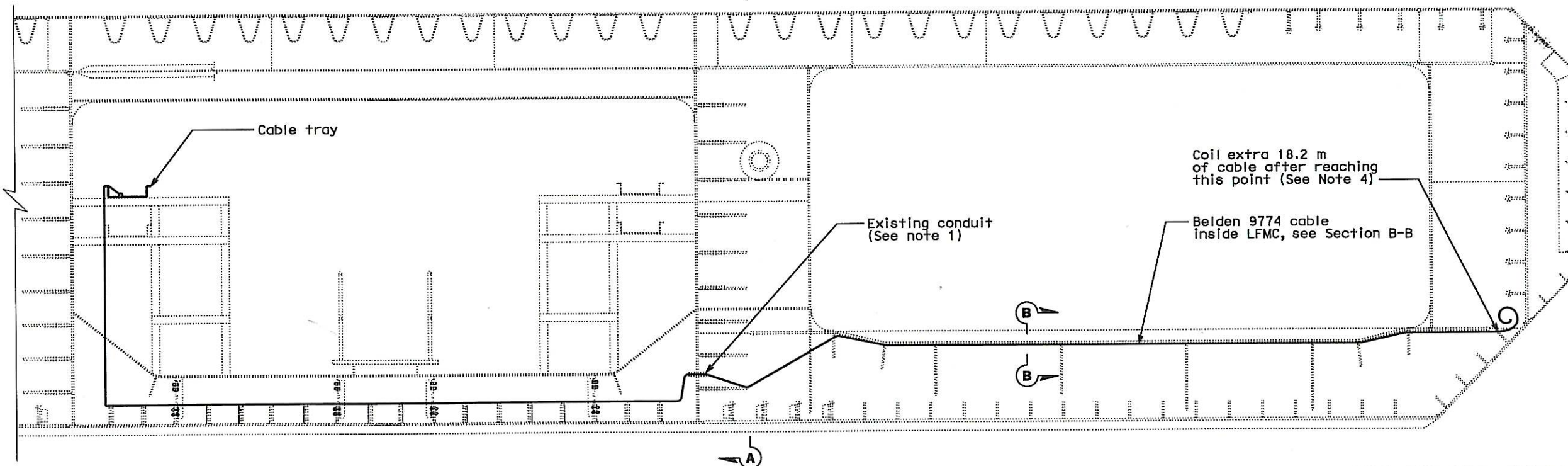
SECTION A-A

Existing conduit
(See note 1)



SECTION B-B

Belden 9774 cable
in LFMC.



EASTBOUND OBG SECTION AT PP124
(LOOKING EAST)

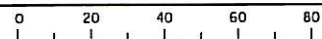
NOTES:

1. The Contractor shall run the cable out of the cable tray along the bottom plate and through an existing conduit in the diaphragm into PWS chamber. The conduit through the longitudinal diaphragm shall be sealed once the cable is in place.
2. All cables outside of the cable tray shall be enclosed in a flexible conduit.
3. The conduit shall be sufficiently secured to the stiffener flange by the Contractor. See Section B-B.
4. Contractor shall leave extra 18.2 m of slack cable after reaching the edge plate.
5. A representative from the Department shall be present during the wiring.
6. Accelerometers are to be attached by others.

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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SF	80	13.2/13.9	407A 12S27	1204

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DAVID H. OTO
No. 10699
Exp. 06/30/2015
ELECTRICAL
STATE OF CALIFORNIA

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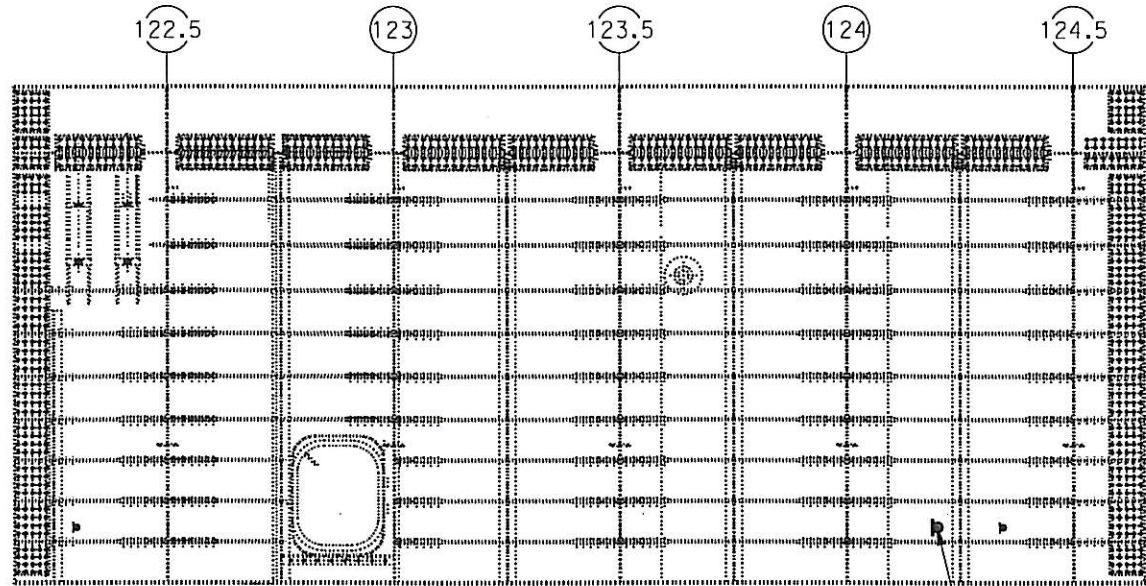
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MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
REVISIONS					

CONTRACT CHANGE ORDER NO. 359
SHEET 29 OF 36

DETAILS
TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM
SAS SUPERSTRUCTURE
TYPICAL CROSS SECTION
SCALE: NONE

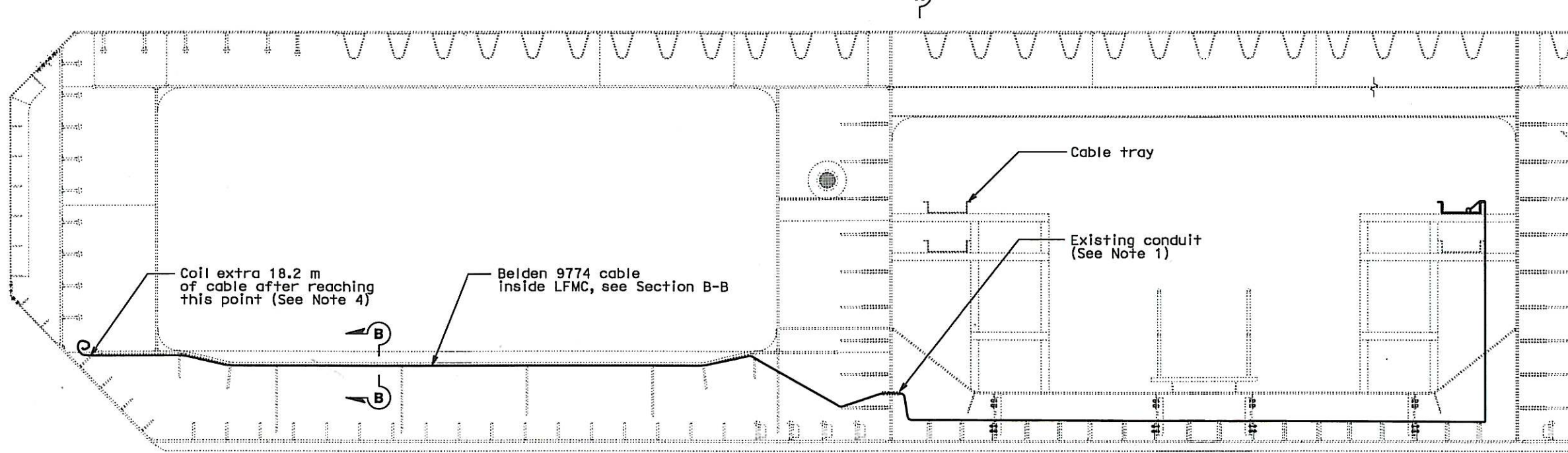
E-1227



SECTION A-A

Belden 9774 cable
inside LFMC

SECTION B-B



WESTBOUND OBG SECTION AT PP124
(LOOKING EAST)

NOTES:

1. The Contractor shall run the cable out of the cable tray along the bottom plate and through an existing conduit in the diaphragm into PWS chamber. The conduit through the longitudinal diaphragm shall be sealed once the cable is in place.
2. All cables outside of the cable tray shall be enclosed in a flexible conduit.
3. The conduit shall be sufficiently secured to the stiffener flange by the Contractor. See Section B-B.
4. Contractor shall leave extra 18.2 m of slack cable after reaching the edge plate.
5. A representative from the Department shall be present during the wiring.
6. Accelerometers are to be attached by others.



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SF	80	13.2/13.9	407A 12S28	1204

12/13/13
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MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
REVISIONS					

CONTRACT CHANGE ORDER NO. 359
SHEET 30 OF 36

DETAILS
TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM
SAS SUPERSTRUCTURE
TYPICAL CROSS SECTION
SCALE: NONE

E-1228

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CU 04251

EA 0120F1

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TIME PLOTTED => 16:40
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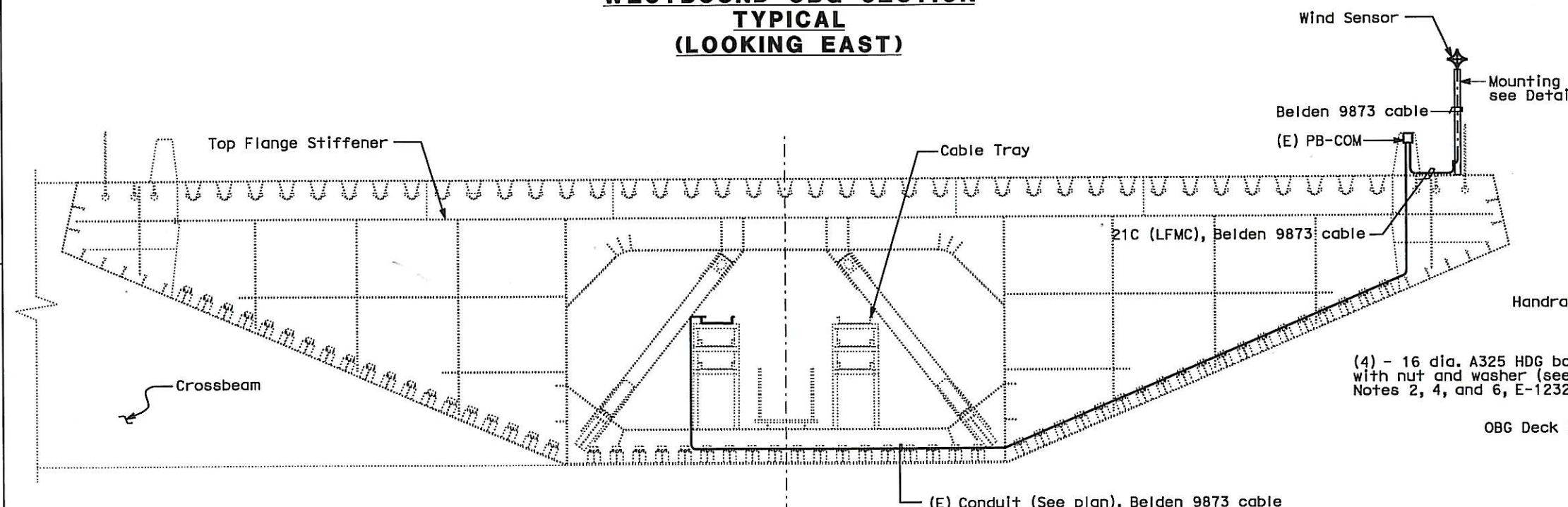
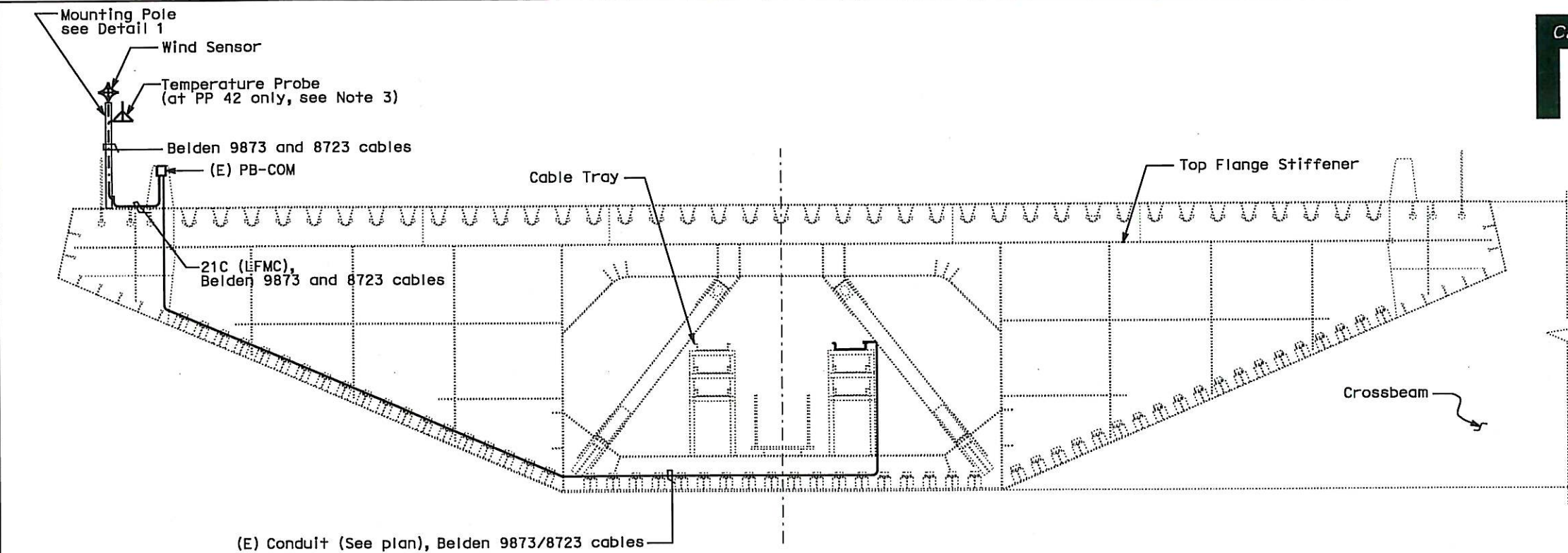


DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SF	80	13.2/13.9	407A 12S29	1204
REGISTERED ELECTRICAL ENGINEER			DATE 12/13/13		
DAVID H. OTO			No. 10699		
PLANS APPROVAL DATE			Exp. 06/30/2015		
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NOTES:

1. The Contractor shall use Belden 9873 cable for the wind sensor wiring and Belden 8723 for the temperature probe wiring.
2. The Contractor shall attach the wind sensor onto a 3658mm pole and secure the pole on top of the corner assembly.
3. The Contractor shall attach the temperature probe to the pole at the North side of PP42 only.
4. The cables are to be routed from the cable tray through existing conduit to PB-COM at the barrier, and out of the mouse hole to the wind sensor as shown on the drawing. This is similar for temperature probe cable.
5. A representative from the Department shall be present during the installation of the wind sensor and the temperature probe.
6. Contractor shall caulk around the perimeter of the base plate and around the bolt heads.
7. The wind sensor is installed so its junction box is facing due south.

WESTBOUND OBG SECTION TYPICAL (LOOKING EAST)



DETAIL 1

Typical Instrument Pole

EASTBOUND OBG SECTION TYPICAL (LOOKING EAST)

DETAILS TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM SAS SUPERSTRUCTURE TYPICAL CROSS SECTION

SCALE: 1:20

E-1229

REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE					
03/25/14	TEMPORARY OBG MOTION INSTRUMENTATION	EL	RG	359	
MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
		REVISIONS			

CONTRACT CHANGE ORDER NO. 359
SHEET 31 OF 36

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SCALE IS IN MILLIMETERS

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CU 04251

EA 0120F1

DATE PLOTTED => 25-MAR-2014
TIME PLOTTED => 11:18
LAST REVISION
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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SF	80	13.2/13.9	407A12 S30R1	1204

REGISTERED ELECTRICAL ENGINEER DATE 12/13/13
DAVID H. OTO
No. 10699
Exp. 06/30/2015
ELECTRICAL
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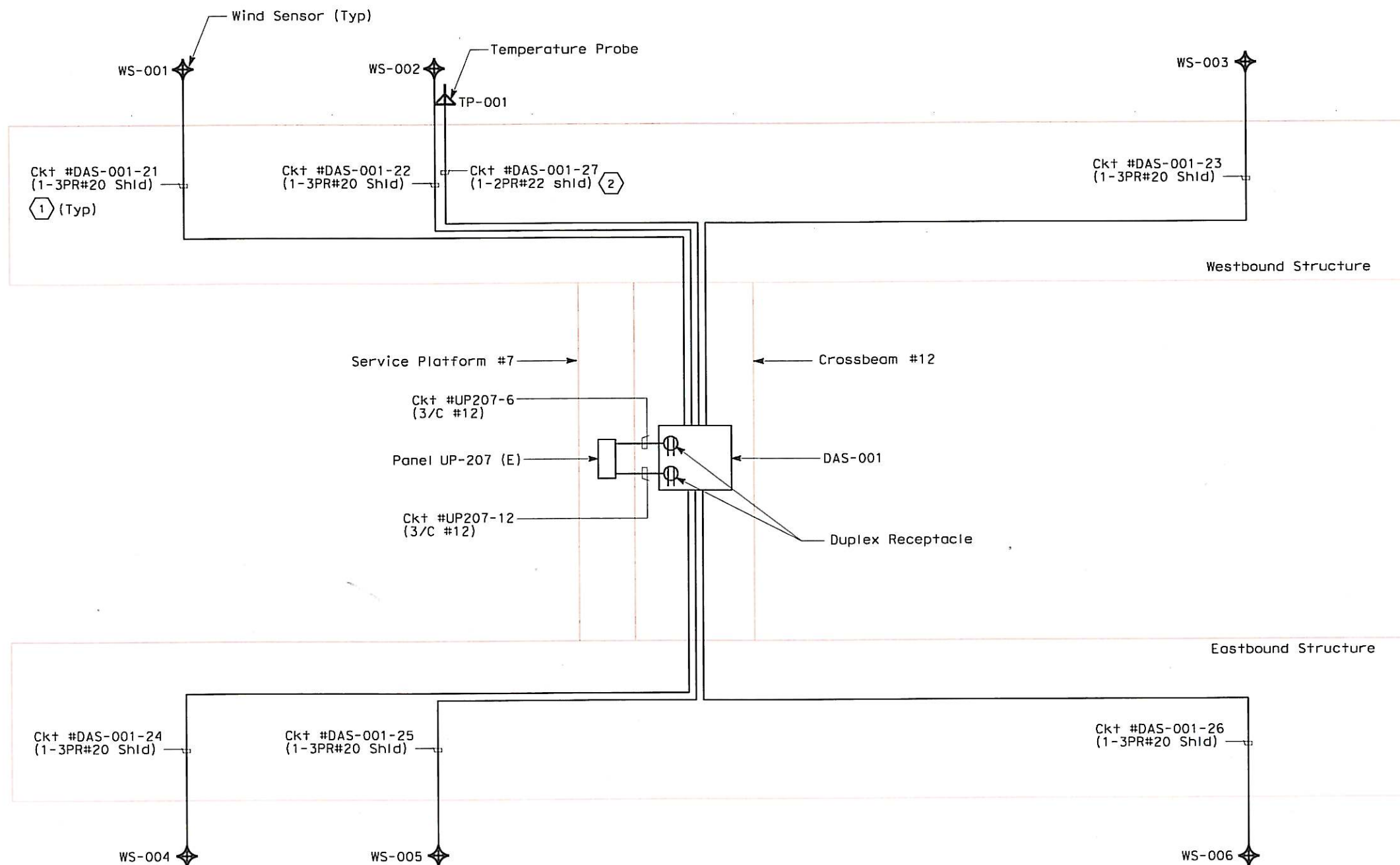
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SHEET NOTES:

- 1 Wind Sensor cable shall be Belden 9873.
- 2 Temperature Probe cable shall be Belden 8723.

NOTES:

1. References:
 - For General Notes, see sheet E-1200.
 - For instrument locations, see sheet E-1202.
 - For Utility Panel Schedule UP-207, see sheet E-1224.
 - For circuit and conduit/cable tray schedules, see sheets starting at E-400 series.



REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE					
1	05/29/14	TEMPORARY OBG MOTION INSTRUMENTATION	EL	RG DO	359
2	12/13/13	TEMPORARY OBG MOTION INSTRUMENTATION	RR RSB	RG	359
MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
REVISIONS					

CONTRACT CHANGE ORDER NO. 359
SHEET 32 OF 36

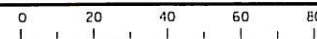
DETAILS
TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM
(WIND SENSORS AND TEMPERATURE PROBE)
CABLE BLOCK DIAGRAM

SCALE: NONE

E-1230

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SCALE IS IN MILLIMETERS



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CU 04251

EA 0120F1



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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REGISTERED ELECTRICAL ENGINEER: *David H. OTO* DATE: 12/13/13

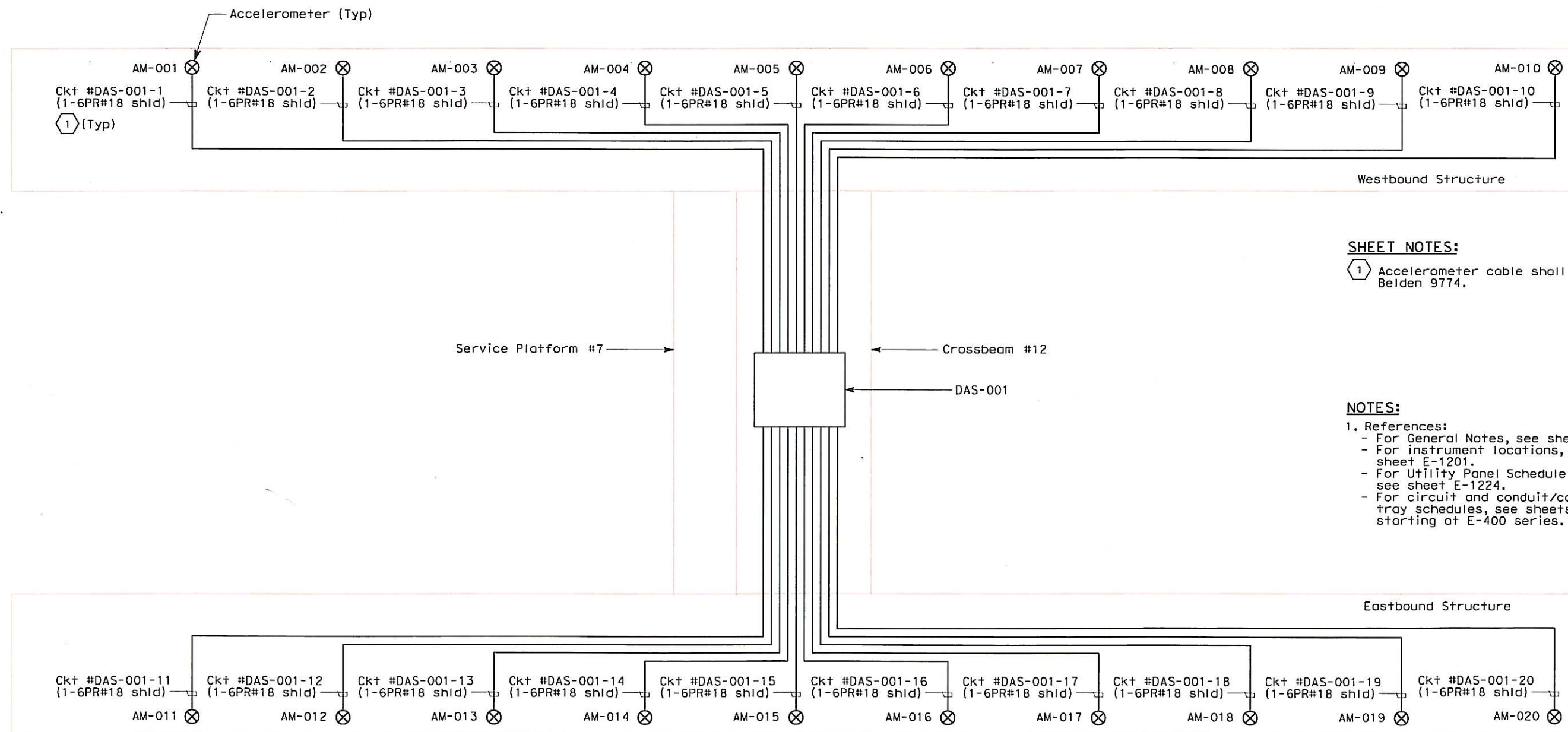
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SHEET NOTES:

- 1 Accelerometer cable shall be Belden 9774.

NOTES:

1. References:
- For General Notes, see sheet E-1200.
 - For instrument locations, see sheet E-1201.
 - For Utility Panel Schedule UP-207, see sheet E-1224.
 - For circuit and conduit/cable tray schedules, see sheets starting at E-400 series.

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1	05/29/14	TEMPORARY OBG MOTION INSTRUMENTATION	EL	RG	DO 359
2	12/13/13	TEMPORARY OBG MOTION INSTRUMENTATION	RR	RG	RSB 359
MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
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CONTRACT CHANGE ORDER NO. 359
SHEET 33 OF 36

DETAILS

TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM

(ACCELEROMETERS)

CABLE BLOCK DIAGRAM

SCALE: NONE

E-1231

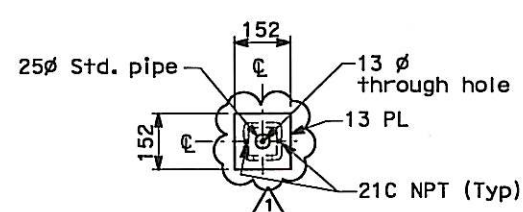
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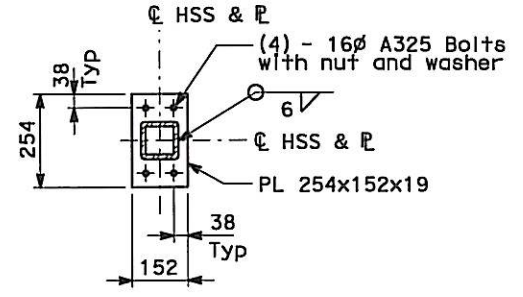
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CU 04251
EA 0120F1

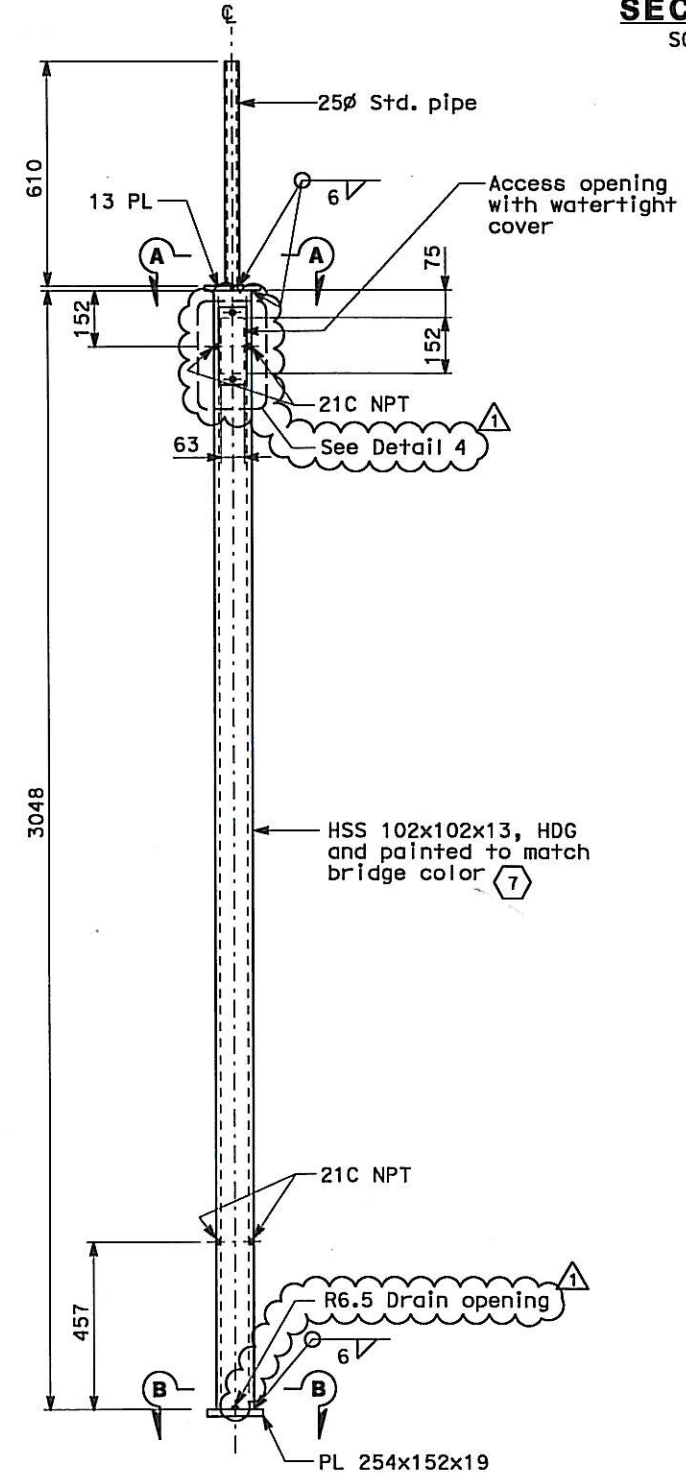
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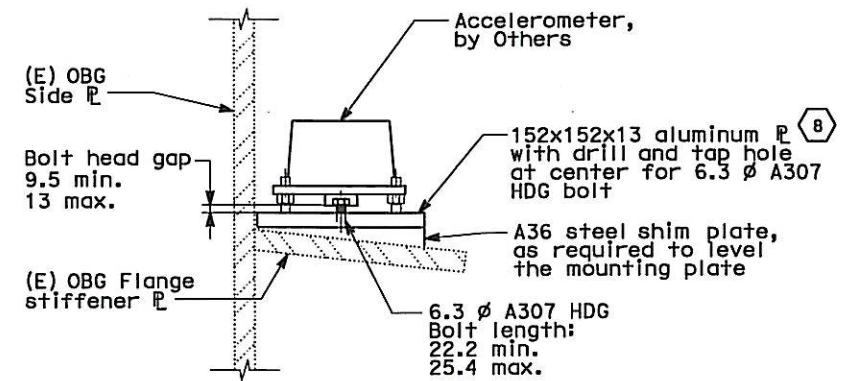
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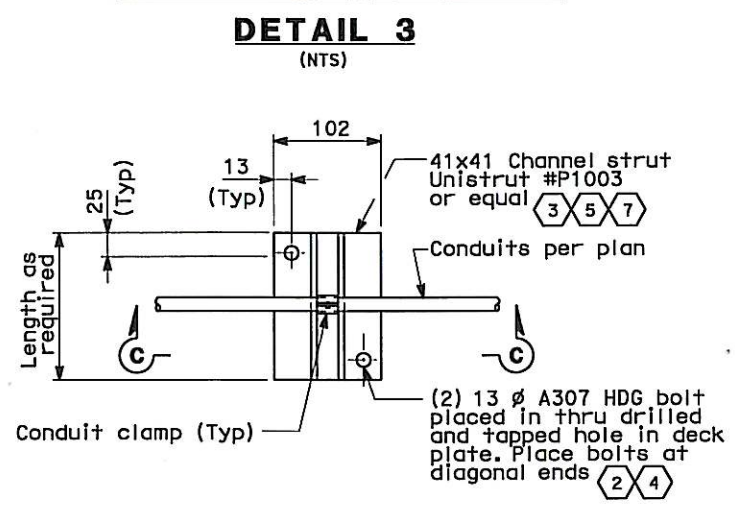
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SCALE: 1:10



DETAIL 1
SCALE: 1:10

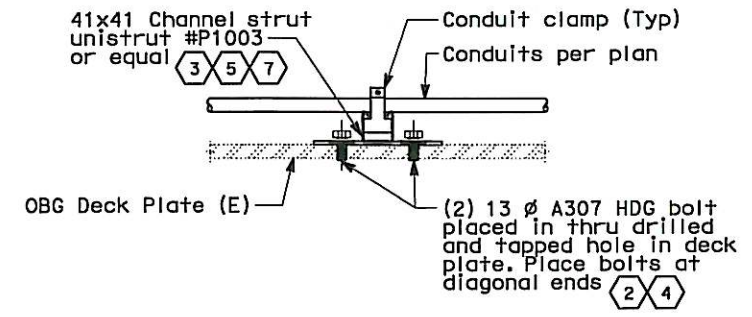


ACCELEROMETER SUPPORT DETAIL

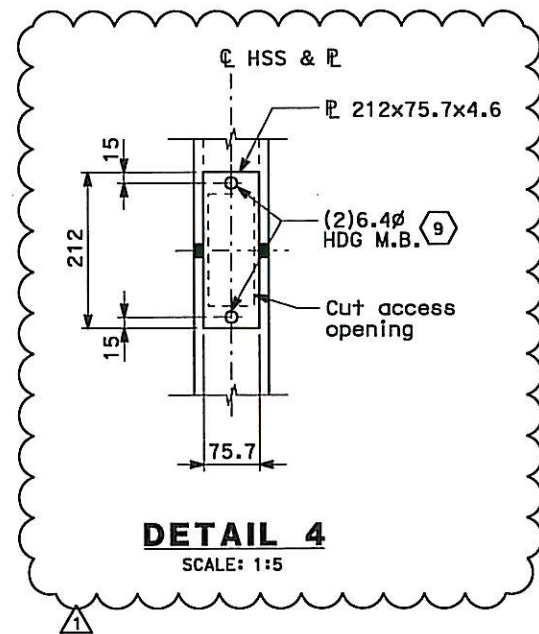


1 Typical conduit, pull box support installation at OBG deck plate or crossbeam top plate

DETAIL 2 - PLAN
(NTS)



SECTION C-C
(NTS)



DETAIL 4
SCALE: 1:5



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
04	SF	80	13.2/13.9	407A12 S32R2	1204

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DAVID H. OTO No. 10699 Exp. 06/30/2015 ELECTRICAL

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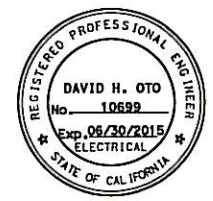
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SHEET NOTES:

- 1 Channel Struts supporting pull boxes at OBG deck plate/crossbeam top plate shall be attached similar to conduit support channel strut as shown in Detail 2. All channel struts shall be 12Ga nominal thickness.
- 2 Contractor shall caulk around the perimeter of the channel strut bottom plate and around the bolt heads.
- 3 All channel struts attached to OBG deck plate/crossbeam top plate shall be hot-dipped galvanized.
- 4 Bolts installed in the OBG deck plate/crossbeam top plate shall clear internal members/stiffeners by a minimum distance of 50mm. Bolts shall not be placed within 50mm of the edge of the OBG deck plate/crossbeam top plate.
- 5 In lieu of Unistrut #P1003 type channel strut, Contractor has an option to use 41x41 channel strut (#P1000, 12 Ga or equal) spot welded to 6.4mm thick x 102 wide plate. Welds shall be located at each end and at 76mm max. on center. The assembly shall be hot-dipped galvanized after fabrication.
- 6 Contractor shall locate the pole clear of all mechanical piping and coordinate with structural drawings to clear diverter plates and other deck mounted appurtenances.
- 7 Wind sensor mounting pole, conduit supports and other OBG deck attachments shall be completely removed at the end of monitoring program by others. Bolt holes in OBG deck shall be plugged and/or watertight sealed in accordance with special provisions by others.
- 8 Contractor shall attach 152x152 plate and shims to OBG top flange stiffener PL using loctite E-20NS metal bonding epoxy.
- 9 Drill and tap 6.4mm diameter hole in HSS. Drill 9.5mm diameter hole in cover plate.



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2	05/29/14	TEMPORARY OBG MOTION INSTRUMENTATION	EL	RG	359
1	04/29/14	TEMPORARY OBG MOTION INSTRUMENTATION	RG	DO	359
0	03/25/14	TEMPORARY OBG MOTION INSTRUMENTATION	EL	RG	359
MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#

CONTRACT CHANGE ORDER NO. 359
SHEET 34 OF 36

DETAILS
TEMPORARY OBG MOTION INSTRUMENTATION SYSTEM
SAS SUPERSTRUCTURE
INSTRUMENT POLE AND CONDUIT INSTALLATION
SCALE AS NOTED

E-1232

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05-29-14

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2. Existing (E) conduits and cable trays shown in bold are for routing and pulling information of the OBG motion instrumentation cables.



David H. OTO 4/29/14
REGISTERED ELECTRICAL ENGINEER DATE


PLANS APPROVAL DATE

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San Francisco, CA 94107-1317

REGISTERED PROFESSIONAL ENGINEER
DAVID H. OTO
No. 10699
Exp. 06/30/2015
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MARK	DATE	DESCRIPTIONS				BY	CH'D	CC	
REVISIONS									

834

600 (cabinet)

19Ø A307 Bolt,
EA side of WF web

1200

53

1092 (cabinet)

380

PL 13, See
Detail 1

(E) 14 x 130
Stiffener (Typ)

(4) L89x102x13x
410 Long
See Detail 2

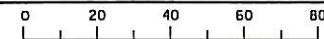
Data acquisition
system enclosure.
See electrical plans

E-1234

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